Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745

# Title V Operating Permit

Permit No.: 157-97-TV(R3) Plant ID: 0189

Effective Date: Click here to enter a date. Expiration Date: Click here to enter a date.

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Rohm and Haas - Louisville Plant
4300 Camp Ground Road
Louisville, KY 40216

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than six (6) months prior to the expiration date.

Permit Writer: Diana Prentice

| | |
|---|---|
| Administratively Complete: | 9/1/2011 |
| Public Notice Date: | 5/12/2014 |
| | 6/28/2014 |
| Proposed Permit Date: | 5/12/2014 |
| | 6/28/2014 |

{manager1}
Air Pollution Control Officer
{date1}

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**Title V Permit Revisions/Changes**

| Revision No. | Date or Reissuance | Public Notice Date | Type | Emission Unit | Description |
|---|---|---|---|---|---|
| Initial | 02/28/2007 | 09/03/2006 | Initial | Entire Permit | Notes 1, 2, 3 |
| R1 | 03/30/2009 | N/A | Admin | U-UTIL | Incorporate Construction Permits 254-05-C(R1), 522-07-C, and 525-08-C |
| R2 | 07/21/2011 | 05/18/2011 | Admin | Entire Permit | Notes 4, 5 |
| R3 | xx/xx/2014 | 05/12/2014 | Renewal | Entire Permit | 5 year Renewal; incorporate STAR TAC requirements, Construction permits: 523-07-C(R1), 449-90-C(R2), 105-09-C, 32-10-C, 378-06-C(R1), 31532-11-C, 31533-11-C, and 31534-11-C; include repurposed tanks. Notes 6, 7, 8, 9, 10 |
| | | 6/28/2014 | Significant | U-KAC-DryPack, page 57 and U-KAC-D-PKG, page 71 | The Duration of the Method 9 test was changed from 3 hours to 30 minutes. |
| | | | Admin | 1) U-KVP2-PELL, S.2.a.iii.; 2) U-KV2-50#bag, Equipment Description, Standards, Reporting and SOB | 1) Clarification of the monitoring requirement for the VOC concentration; 2) Corrected the Equipment Description of the process collector. Corrected the description in all the related standards, monitoring/record keeping, reporting requirements, and comments. Corrected the PM standard for the emission points 03-571 and 03-572 to match construction permit 35996-12-C; and updated the SOB to match the PM lb/hr standard |

| Application # | Date Rec'd | Type |
|---|---|---|
| 31688, 31689, 31690, 31691 | 8/29/2011 | Title V renewal |
| 36057 | 2/23/2012 | Application for Revision to Permit 449-90-C |
| 36050 | 2/23/2012 | Application for Revision to Permit 532-07-C |
| 36277 | 3/2/2012 | Addition information for Application for Revision to Permit |

| Application # | Date Rec'd | Type |
|---|---|---|
| | | 449-90-C |
| 41818 | 7/25/2012 | Updated Title V forms |
| 59982 | 10/11/2013 | Updated Title V forms for 35996-12-C |
| 63501 | 3/28/2014 | Updated Title V forms for diesel engines and change the name of emission unit U-MAINT to U-MISC |
| 64129 | 4/17/2014 | Updated Title V forms for CAM Plans |

Notes:

1) The District incorrectly changed some limits for Boiler 100. These limits have been changed back to match the draft Title V and Construction Permit 449-90-C, dated February 13, 2002.

2) The District made the changes indicated in the response to comments that were inadvertently missed.

3) The District corrected some additional typographical errors.

4) The District removed equipment permanently taken out of service on the following dates. The District also corrected additional typographical errors.

- 03/25/2009: U-KU-Misc- (06-416 and 06-531), U-KU-Storage4- (08-500, 08-510, 08-520, 08-530, 08-540, 08-550, 08-560, 08-570, 08-580, 08-590, 08-660, 08-665, 08-670, 08-675, 08-680, 08-685) and U-KVK-Tanks1-03-105
- 06/30/2009: U-KV3-Dryer System- (17-300, 17-330, 17-250, 17-256, 17-116, 17-477, 17-235), U-KV3-Misc-17-150, U-KV3-Tanks1- (17-200, 17-272, 17-478, 17-155, 17-158, 17-205, 17-240, 17-241 and 17-262), U-KV3-Misc- (17-220, 17-221, 17-224, 17-376, 17-390, 17-392, 17-462, 17-Pkg, 17-S&G), U-KV3-Tanks2- (17-185 and 17-246), U-KVK-E&FReact- (05-500, 05-508, 05-510, 05-515, 05-518 and 05-546), U-KVK-Misc- (05-501, 05-520, 05-523, 05-524, 05-533, 05-542, 05-545 and 05-562)
- 09/29/2009 & 10/14/2009: U-KU-Load-05-479, U-KU-Storage1-05-402, U-KU-Storage2-66-172, U-KU-Storage4-08-355, U-KU-MISC- (03-233, 05-135 and 05-181), U-KU-Storage1- (05-140, 05-150, 05-405, 05-410, 05-415, 05-420, 05-425, 05-430, 05-452, 05-458, 05-467, 05-471, 05-473, 05-475 and 05-477), U-KU-Storage2- (05-121, 05-215, 05-217, 05-220, 06-533, 06-645, 08-260, 08-262, 08-264 and 08-266), U-KU-Storage3- (08-400, 08-401, 08-402, 08-403 and 08-404), U-KU-Storage5- (05-202 and 08-200), U-KU-Storage6- (08-204, 08-230, 08-231, 08-232, 08-233, 08-234, 08-235, 08-236, 08-237, 08-238, 08-239, 08-244, 08-245, 08-246, 08-247, 08-248, 08-249, 08-250, 08-251, 08-252, 08-253, 08-258, 08-259, 08-261, 08-263, 08-265 and 08-267), and U-KU-Storage7- (05-155, 06-150, 08-350, 08-351, 08-352, 08-353, 08-354, 08-470, 08-471 and 08-472)
- 02/01/2010: U-KU-Load- (07-100, 07-110), U-KU-Misc- (03-715, 05-191, 05-334, 05-346, 05-349, 06-290, 06-438, 06-459, 06-500, 06-510, 05-561, 06-570, 06-610, 08-220, 08-227, 58-175, 66-170, Drum, Used Drum), U-KU-Reactors- (05-255, 05-266), U-KU-Storage1- (05-230, 05-402, 05-450, 05-454, 05-456, 05-465, 05-469, 06-306), U-KU-Storage2- (05-226, 05-245, 06-307, 06-424, 08-205), U-KU-Storage5- (05-175, 05-204, 06-224), U-KU-Storage6- (05-124, 05-207, 06-536), U-KU-Storage8- (05-240, 05-250, 05-275, 05-280, 05-310, 05-320, 05-330, 06-401, 06-403, 06-431, 06-433, 06-518, 06-521, 06-528, 06-530, 06-540, 06-550, 08-222), U-KV3R-Tanks1- (17-650, 17-802, 17-803, 17-805, 17-820, 17-825, 17-869, 17-920), U-KV3R-Tanks2- (17-365, 17-870, 17-930), U-KV3R-Tanks3- (17-625, 17-647, 17-655, 17-665, 17-670, 17-705, 17-875, 17-880)

- 07/01/2010: U-KV3R-I&JReac- (17-601, 17-900, 17-630, 17-860, 17-855, BD Area, Rail), U-KV3R-Tanks2-17-721, U-KU-Misc- (06-361, 06-364), U-KU-Reactors- (05-128, 05-232, 05-285, 05-290, 05-300, 05-305, 06-300, 06-330, 06-400, 06-430), and U-KU-Storage5-05-120

5) Appendix B removed as company is no longer subject to 40 CFR 63 Subpart JJJ, per 40 CFR 63.1310(f)(9) per company letter from March 8, 2010 stating that the company did not anticipate making any thermoplastic products in the future.

6) The District removed the following equipment that was deemed trivial activities (letter received 6/1/2012): U-KAC-Powder-14-593, U-KAC-D-PKG-KACD-vac, U-KV1-Dryer-05-770, U-KV2-Dryer-03-392, U-KVPA-Dry-09-650, and U-KVP2-PKG-11-272.

7) The District removed the following equipment permanently taken out of service):

- 10/06/2011: U-KAC-DryPack- (14-295, 14-337), U-KAC-Tanks2-14-660, U-KAC-Tanks4- (14-116, 14-119), U-KV3R-Tanks1-03-156, U-KV3-Tanks1- (17-100, 17-103, 17-105), U-KV3-Tanks2- (17-135, 17-136)
- 02/22/2013: U-KV1-Dryer- (05-570, 05-600, 05-740, 05-770) and U-KV1-Pack-Bag
- 05/08/2013: U-KVP1-PELL- (05-776 and 05-781)
- 01/31/2014: U-PLANT-Misc- (Print 1, Print 2, Print 5, Print 6), and U-KU-Storage3-17-530
- 03/06/2014: U-PPLANT-Misc – (Print 3, Print 4, Print 7, Print 8), U-KV2-50#bag 03-570, and U-KVK-Misc (66-510 and 66-513)
- 03/26/2014: U-KB-Tanks1 (03-800 and 03-940)

8) The following tanks were repurposed and put back into service:

- U-KVK-Tanks2- (05-450, 05-452, 05-454, 05-456, 05-458, 05-465, 05-467, 05-469, 05-471, 05-473, 05-475, 05-477

9) The following tanks were moved to different emission units:

- 05-692 from U-KV1-Feed2 to U-KVPA-Feed
- 05-670 from KV1-Dryer to KV1-Feed1, there are no emission points left in KV1-Dryer and the entire emission unit has been removed from the Title V Permit

10) Appendix A now includes CAM requirements. Three additional appendices have been added to the permit: Appendix D, Protocol for Performance Test; Appendix E, Regulation 7.25 VOC Emission Points that do not have a BACT Analysis; and Appendix F, Control Device Efficiencies and Determination Methods.

**Abbreviations and Acronyms**

APCD - Louisville Metro Air Pollution Control District
BAC - Background Ambient Concentration
BACT - Best Available Control Technology
Btu - British thermal unit
CEMS - Continuous Emission Monitoring System
CFR - Code of Federal Regulations
CO - Carbon monoxide
District - Louisville Metro Air Pollution Control District
EA - Environmental Acceptability
gal - U.S. fluid gallon
HAP - Hazardous Air Pollutant
HCl - Hydrogen chloride
Hg - Mercury
hr - hour
in - inch
lbs - pounds
l - liter
LMAPCD - Louisville Metro Air Pollution Control District
mm - millimeter
MM - million
NAICS - North American Industry Classification System
$NO_x$ - Nitrogen oxides
NSPS - New Source Performance Standards
NSR - New Source Review
PM - Particulate Matter
$PM_{10}$ - Particulate Matter less than 10 microns
$PM_{2.5}$ - Particulate Matter less than 2.5 microns
ppm - parts per million
PSD - Prevention of Significant Deterioration
psia - pounds per square inch absolute
QA - Quality Assurance
RACT - Reasonably Available Control Technology
SIC - Standard Industrial Classification
SIP - State Implementation Plan
$SO_2$ - Sulfur dioxide
STAR - Strategic Toxic Air Reduction
TAC - Toxic Air Contaminant
tpy - Tons per year
UTM - Universal Transverse Mercator
VOC - Volatile Organic Compound

## Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16 section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 2.02, section 2 may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified in District Regulation 2.02, section 2 shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

## General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. (Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7)

2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

   ***US EPA - Region IV***
   ***Air Enforcement Branch***
   ***Atlanta Federal Center***
   ***61 Forsyth Street***
   ***Atlanta, GA 30303-8960***

   ***Air Pollution Control District***
   ***Room 205***
   ***850 Barret Ave***
   ***Louisville, KY 40204-1745***

   This certification must be postmarked by April 15th of the year following the year for which the certification is being submitted, or other such due date as required by another applicable regulation.

3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:

   a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.

   b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

   a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations. The

affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An emergency occurred and that the owner or operator can identify the cause of the emergency;

ii. The permitted facility was at the time being properly operated;

iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and

iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. (Regulation 2.16, sections 4.7.1 through 4.7.4)

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 1.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. (Regulation 2.08, section 1.6)

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as District-Only Enforceable Conditions, all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. (Regulation 2.16, sections 4.2.1 and 4.2.2)

9. **Enforcement Action Defense**

a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. (Regulation 2.16, sections 4.1.13.2 and 4.1.13.3)

10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. (Regulation 2.16, section 4.1.13.6)

    If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b. (Regulation 2.07, section 10.2)

12. **Insignificant Activities** - The owner or operator shall:

    a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. (Regulation 2.16, section 5)

    b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. (Regulation 2.16, section 4.3.5.3.6)

13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours: (Regulation 2.16, section 4.3.2)

    a. Enter the premises to inspect any emissions-related activity or records required in this permit.

    b. Have access to and copy records required by this permit.

    c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.

    d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.

14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be January 1st through June 30th and July 1st through December 31st of each calendar year. All reports shall be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the following certification statement per Regulation 2.16.

    - "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete."

- Signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

| Reporting Period | Report Due Date |
|---|---|
| January 1st through June 30th | August 29th |
| July 1st through December 31st | March 1st |

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days following the date a change in the designated RO occurs for this facility.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5. (Regulation 2.16, section 4.1.5)

16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.

17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.

18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.

19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.

20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. (Regulation 2.16, section 4.1.16)

22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.

23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:

    a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment.

    b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District.

    c. Knowingly making any false statement in any permit application.

    d. Noncompliance with Regulation 1.07, section 4.2; or

    e. Noncompliance with KRS Chapter 77.

25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.

26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.

28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.

29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.

30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.

31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. (Regulation 2.16, section 4.1.12)

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

    a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:

***Louisville Metro Air Pollution Control District***
***Room #205***
***850 Barret Ave***
***Louisville, KY 40204-1745***

b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16 sections 3.3 and 5.8.5 shall be mailed to EPA at:

***US EPA - Region IV***
***APTMD - 12th floor***
***Atlanta Federal Center***
***61 Forsyth Street***
***Atlanta, GA 30303-3104***

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

**Federally Enforceable Regulations:**

| Regulation | Title |
|---|---|
| 1.01 | General Provisions |
| 1.02 | Definitions |
| 1.03 | Abbreviations And Acronyms |
| 1.04 | Performance Tests |
| 1.05 | Compliance With Emissions Standards And Maintenance Requirements |
| 1.06 | Source Self-Monitoring and Reporting |
| 1.07 | Emissions During Shutdowns, Malfunctions, Startups, and Emergencies |
| 1.08 | Administrative Procedures |
| 1.10 | Circumvention |
| 1.11 | Control of Open Burning |
| 1.14 | Control of Fugitive Particulate Emissions |
| 2.01 | General Application |
| 2.02 | Air Pollution Regulation Requirements and Minor Facility Exemptions |
| 2.03 | Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements |
| 2.07 | Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits |
| 2.09 | Causes for Permit Suspension |
| 2.10 | Stack Height Considerations |
| 2.11 | Air Quality Model Usage |
| 2.16 | Title V Operating Permits |
| 4.01 | General Provisions for Emergency Episodes |
| 4.02 | Episode Criteria |
| 4.03 | General Abatement Requirements |
| 4.07 | Episode Reporting Requirements |
| 6.01 | General Provisions (Existing Affected Facilities) |
| 6.02 | Emission Monitoring for Existing Sources |
| 7.01 | General Provisions (New Affected Facilities) |

**District Only Enforceable Regulations:**

| Regulation | Title |
|---|---|
| 1.09 | Prohibition of Air Pollution |
| 1.12 | Control of Nuisances |
| 1.13 | Control of Objectionable Odors |
| 2.08 | Emission Fee, Permit Fees and Permit Renewal Procedures |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous air Pollutants, Definitions |
| 5.01 | Standards for Toxic Air Contaminants and Hazardous air Pollutants, General Provisions |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant |
| 5.23 | Categories of Toxic Air Contaminants |

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

    a. Any facility having any refrigeration equipment that normally contains fifty (50) pounds of refrigerant or more must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;

    b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;

    c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;

    d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

    e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance

according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;

g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. (Regulation 2.16, section 4.1.5)

**STAR Requirements**

| DISTRICT ONLY ENFORCEABLE REGULATIONS | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 through 4 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

a. The owner or operator shall submit with the application for construction for any new emission unit the STAR EA Demonstration for all Category 1 through Category 4 TACs emitted from that emission unit.

b. The owner or operator shall submit a plant-wide emissions-based EA Demonstration to the District showing compliance with the plant-wide EA goals of 7.5 for new and existing, 3.8 for all new combined, and 1.0 for each TAC from each process when a change occurs that increases emissions above de minimis or previously modeled values.

c. If the TAC does not have an established BAC or de minimis value, the owner or operator shall calculate and report these values. The form located on the APCD website (http://www.louisvilleky.gov/APCD) may be used for determining BAC and de minimis values.

**Title V Permit Organization**

Rohm and Haas – Louisville Plant's permit is organized into ten Production Units. Each Production Unit is then subdivided into Emission Units, as follows:

| Rohm and Haas – Louisville Plant Title V Permit Organization | | |
|---|---|---|
| Production Unit | Emission Unit Designation | Emission Unit Description |
| KAC | U-KAC-Tanks1 | KAC tanks |
| | U-KAC-Tanks2 | KAC tanks |
| | U-KAC-Tanks3 | KAC tanks |
| | U-KAC-Tanks4 | KAC tanks |
| | U-KAC-Reactor | KAC reactor system controlled by the Regenerative Thermal Oxidizer (RTO) |
| | U-KAC-Load | KAC rail and truck loading facilities |
| | U-KAC-Powder | KAC equipment controlled by fabric filters |
| | U-KAC-DryPack | KAC packaging and other equipment controlled by fabric filters |
| | U-KAC-Misc | KAC equipment with unique requirements |
| | U-KAC-D-PKG | KAC-D packaging and rework equipment controlled by fabric filter |
| KB | U-KB-Columns+ | KB equipment with unique requirements |
| | U-KB-Tanks1 | KB tanks |
| KVK | U-KVK-Tanks1 | KVK tanks |
| | U-KVK-Tanks2 | KVK storage tanks with similar requirements |
| | U-KVK-G&HReact | KVK G & H Reactor Systems |
| | U-KVK-Misc | KVK equipment with unique regulations |
| KV-1 | U-KV1-Feed1 | KV1 emulsion feed tanks with same requirements from 7.12 |
| | U-KV1-Feed2 | KV1 tanks with the same requirements |
| | U-KV1-Pack | KV-1 Product Packaging System |
| KVP-2 | U-KVP2-PELL | KVP-2 Pelletizer System Emission Unit |
| | U-KVP2-PKG | KVP-2 Packaging System Emission Unit |
| KV-2 | U-KV2-Feed | KV2 Feed Emission Unit |
| | U-KV2-Dryer | KV2 Dryer Emission Unit |
| | U-KV2-50#bag | KV2 50# Bagging System |
| KV-PA | U-KVPA-Feed | KVPA Feed system (includes tanks) |
| | U-KVPA-Dry | Dryer Emission Unit (including processing and dust collection systems) |
| | U-KVPA-Pack | KVPA Packaging system |
| MISC | U-Plant-Misc | Plant miscellaneous equipment |
| UTIL | U-UTIL-Steam | Utilities Emission Points associated with steam production |
| | U-UTIL-WW | Utilities wastewater system Emission Points |

**KAC PRODUCTION UNIT: Production of Coatings and Resins**

U-KAC-Tanks1 Emission Unit Description**:** KAC tanks

**U-KAC-Tanks1 Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 6.13 | Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds | 1, 2, 3.3, 5 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, 7 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-122 | KAC Storage Tank 13,500 gal 1962 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 and 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p.< 1.5 psia) | | |
| 14-212 | KAC Storage Tank (with Condenser/ 14-214) 5,800 gal 1972 | 1.05 | NONE | N/A | 14-212 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p.< 1.5 psia) | | |
| 14-246 | KAC Weigh Tank (with Condenser/ 14-245) 1,500 gal 1972 | 1.05 | NONE | N/A | 14-246 and 14-252 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 14-254 | KAC Process Tank (with Condenser/ 14-253) 750 gal 1972 | 1.05 | NONE | N/A | 14-254 and 14-252 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 14-535 | KAC Storage Tank 9,000 gal 1962 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 and 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p.< 1.5 psia) | | |

## U-KAC-Tanks1 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. There are no equipment standards that apply to Emission Points 14-122, 14-212, and 14-535, due to the vapor pressure as stored being less than 1.5 psia. (Regulation 6.13, section 3)

ii. For Emission Points 14-246 and 14-254, the owner or operator shall limit the VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lbs/hr for Class III solvents, unless the emissions are reduced by at least 85%.
(Regulation 6.24, section 3.2 and 3.3) (See Comment 1)

b. **HAP**

i. For Emission Points 14-122 and 14-535, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) except as described in Appendix A S1.a.ix.
(Construction Permit 263-05-C, dated October 31, 2005)

ii. See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

The owner or operator of storage vessels 14-122, 14-212, and 14-535 shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.i .

b. **HAP**

i. For Emission Points 14-122 and 14-535, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) monitoring and recordkeeping requirements.

ii. See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is

introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

i. For Emission Points 14-122 and 14-535, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) reporting requirements.

ii. See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KAC-Tanks1 Comments**

1. The source submitted a one-time demonstration on August 1, 2003 that shows the potential VOC emissions cannot exceed the emission standards from Regulation 6.24 for Class II and Class III solvents for Emission Points 14-246 and 14-254 uncontrolled. Therefore, there are no monitoring, recordkeeping, or reporting requirements for these emission points.

2. The District determined on March 13, 2013 that uncontrolled potential individual TAC emissions of toluene were de minimis.

**KAC PRODUCTION UNIT**: Production of Coatings and Resins (Continued)

U-KAC-Tanks2 Emission Unit Description**:** KAC tanks

**U-KAC-Tanks2 Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 7.12 | Standard of Performance for New Storage Vessels for Volatile Organic Compounds | 1, 2, 3.3, 7, 8 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Tanks2 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("S-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-134 | KAC Storage Tank 30,000 gal 1973 | 1.05 | NONE | N/A | 14-134 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-142 | KAC Storage Tank 30,000 gal 1973 | 1.05 | NONE | N/A | 14-142 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-152 | KAC Storage Tank 30,000 gal 1973 | 1.05 | NONE | N/A | 14-152 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-160 | KAC Storage Tank 30,000 gal 1973 | 1.05 | NONE | N/A | 14-160 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-682 | KAC Storage Tank 5,200 gal 1973 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-682 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-684 | KAC Storage Tank 5,000 gal 1973 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-684 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-685 | KAC Storage Tank 4,500 gal 1974 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-685 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-687 | KAC Storage Tank 4,950 gal 1974 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-687 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-688 | KAC Storage Tank 4,950 gal 1974 (Insignificant | 1.05 | NONE | N/A | 14-688 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |

| U-KAC-Tanks2 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("S-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| | Activity – De minimis for STAR) | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-689 | KAC Storage Tank 8,800 gal 1978 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-689 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-690 | KAC Storage Tank 6,700 gal 1980 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-690 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-691 | KAC Storage Tank 7,500 gal 1981 (Insignificant Activity – De minimis for STAR) | 1.05 | NONE | N/A | 14-691 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-695 | KAC Re-claimed Wastewater Tank 300 gal 1985 | 1.05 | NONE | N/A | 14-695 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-696 | KAC Re-claimed Wastewater Tank 300 gal 1985 | 1.05 | NONE | N/A | 14-696 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |

## U-KAC-Tanks2 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

There are no equipment standards that apply to Emission Points 14-134, 14-142, 14-152, 14-160, 14-682, 14-684, 14-685, 14-687, 14-688, 14-689, 14-690, 14-691, 14-695, and 14-696 due to the vapor pressure as stored being less than 1.5 psia. (Regulation 7.12, section 3)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

The owner or operator of storage vessels 14-134, 14-142, 14-152, 14-160, 14-682, 14-684, 14-685, 14-687, 14-688, 14-689, 14-690, 14-691, 14-695, and 14-696 shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KAC-Tanks2 Comments**

1. The potential uncontrolled VOC emissions for the project to install these emission points (14-690, and 14-691) was < 3 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

2. The District determined on March 13, 2013 that uncontrolled potential individual TAC emissions of toluene were de minimis.

**KAC PRODUCTION UNIT**: Production of Coatings and Resins (Continued)

U-KAC-Tanks3 Emission Unit Description**:** KAC tanks

**U-KAC-Tanks3 Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 6.13 | Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds | 1, 2, 3.3, 5 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, 7 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Tanks3 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix** | **Stack ID ("S-KAC-" Prefix)** |
| 14-126 | KAC Storage Tank 13,500 gal 1962 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | Submerged fill | | |
| 14-290 | KAC Blend Tank with process condenser 14-294 14,000 gal 1972 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.iii. | | |
| 14-346 | KAC Storage Tank 13,000 gal 1962 | 1.05 | NONE | N/A | N/A |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 14-352 | KAC Storage Tank 13,000 gal 1962 | 1.05 | NONE | N/A | N/A |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 14-370 | KAC Feed Tank - North with process condenser 14-385 6,500 gal 1972 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.i. | | |
| 14-376 | KAC Feed Tank - South with process condenser 14-389 6,500 gal 1972 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.i. | | |
| 14-525 | KAC Storage Tank 5,500 gal 1962 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.i. | | |

## U-KAC-Tanks3 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. The owner or operator shall equip the storage vessels 14-126, 14-370, 14-376, and 14-525 with a permanent submerged fill pipe or equivalent. The use of the Regenerative Thermal Oxidizer (C-KAC-14-723) shall be considered to be equivalent.
(Construction Permit 245-05-C(R1) dated October 31, 2005) (Construction Permit 187-04-C dated November 30, 2004)

ii. The operator or operator shall equip the storage vessels 14-346 and 14-352 with a permanent submerged fill pipe or equivalent. The use of operating with a low level interlock shall be considered to be equivalent. (Construction Permit 254-05-C, dated October 31, 2005)
(See Comment 1)

iii. For Emission Point 14-290, the owner or operator shall limit VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%.
(Regulation 6.24, section 3.2 and 3.3)

iv. For Emission Point 14-290, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) except as described in Appendix A, S1.a.ix.
(Construction Permit 263-05-C, dated October 31, 2005)

b. **HAP**

i. For Emission Points 14-126, 14-290, 14-370, 14-376 and 14-525, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) except as described in Appendix A, S1.a.ix. (Construction Permit 263-05-C, dated October 31, 2005)

ii. See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Point 14-290, see Appendix A for the Regenerative Thermal Oxidizer (C-KAC-14-723) monitoring and recordkeeping requirements.

b. **HAP**

i. For Emission Points 14-290, 14-370, 14-376,14-126, and 14-525, see Appendix A for the Regenerative Thermal Oxidizer (C-KAC-14-723) monitoring and recordkeeping requirements.

ii. See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Point 14-290, see Appendix A for the Regenerative Thermal Oxidizer (C-KAC-14-723) reporting requirements.

ii. Emission Points 14-346 and 14-352 have no reporting requirements.

b. **HAP**

i. For Emission Points 14-290, 14-370, 14-376, 14-126, and 14-525, see Appendix A for the Regenerative Thermal Oxidizer (C-KAC-14-723) reporting requirements.

ii. See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KAC-Tanks3 Comments**

1. The low level interlock operates such that if the liquid level in the tank falls below the dip pipe level, flow out of the tank will be shut down, precluding operation without the use of submerged fill.

2. The District determined on March 13, 2013 that uncontrolled potential individual TAC emissions of toluene and xylene were de minimis.

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-Tanks4 Emission Unit Description**:** KAC tanks

**U-KAC-Tanks4 Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Number** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Tanks4 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-190 | KAC Storage Tank 2,100 gal 1976 | 1.05 | NONE | N/A | 14-190 |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-780 | KAC Storage Tank 15,000 gal 1987 | 1.05 | NONE | N/A | 14-780 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |
| 14-790 | KAC Storage Tank 10,000 gal 1987 | 1.05 | NONE | N/A | 14-790 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p.< 1.5 psia) | | |

## U-KAC-Tanks4 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

There are no equipment standards that apply to Emission Points 14-190, 14-780, and 14-790 due to the vapor pressure as stored being less than 1.5 psia. (Regulation 7.12, section 3) (See Comment 1)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

The owner or operator of storage vessels 14-190, 14-780, and 14-790 shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental

Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KAC-Tanks4 Comments**

1. The source submitted a one-time demonstration on August 1, 2003 that shows the vapor pressure as stored is less than 1.5 psia. Therefore, there are no applicable standards in Regulation 7.12.
2. The District determined on March 13, 2013 that uncontrolled potential individual TAC emissions of toluene and xylene were de minimis.
3. The potential uncontrolled VOC emissions for the project to install emission points 14-780 and 14-790 was <4 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-Reactor Emission Unit Description**:** KAC reactor system controlled by the Regenerative Thermal Oxidizer (RTO)

**U-KAC-Reactor Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, 7 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Reactor Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-236 | KAC Weigh Tank | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a. | | |
| 14-262 | KAC Reactor (with condenser) | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a. | | |
| 14-400 | KAC Separator | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a. | | |
| 14-510 | KAC Separator System | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | BACT | | |
| 14-540 | KAC Pelletizer | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | BACT | | |

## U-KAC-Reactor Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Points 14-236, 14-262, and 14-400, the owner or operator shall limit VOC emissions from each emission point to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%. (Regulation 6.24, section 3.2 and 3.3)

ii. For Emission Points 14-510 and 14-540, the owner or operator shall limit the combined VOC emissions to less than 12.37 tons per 12 consecutive month period in order to comply with Regulation 7.25. (Construction Permit 144-02, dated May 23, 2003)
(Regulation 7.25, section 3.1)

iii. For Emission Points 14-236, 14-262, 14-400, 14-510, and 14-540, the owner or operator shall limit the combined VOC emissions to less than 12.37 tons per 12 consecutive month period in order to avoid PSD. (Construction Permit 144-02, dated May 23, 2003)
(Regulation 2.05, section 1)

iv. For Emission Points 14-236, 14-262, 14-400, 14-510, and 14-540, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) except as described in Appendix A, S1.a.ix. (Construction Permit 263-05-C, dated October 31, 2005)
(See Comment 1)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For Emission Points 14-236, 14-262, 14-400, 14-510, and 14-540, the owner or operator shall monthly calculate and record the combined total monthly and 12 consecutive month VOC emissions to demonstrate compliance with S1.a.

ii. For Emission Points 14-236, 14-262, 14-400, 14-510, and 14-540, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) monitoring and recordkeeping requirements.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Points 14-236, 14-262, 14-400, 14-510, and 14-540:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Identification of all periods of exceedance of the VOC emission limit of S1.a.iii and the operating parameters;

5) The monthly and 12 consecutive month VOC emissions;

6) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

ii. For Emission Points 14-236, 14-262, 14-400, 14-510, and 14-540, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) reporting requirements.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KAC-Reactor Comments**

1. The regenerative thermal oxidizer is considered BACT for Regulation 7.25. Compliance with the 12.37 tons per 12 consecutive month period, which is the controlled potential VOC emissions, is demonstrated by monitoring the oxidizer and calculating the VOC emissions. The VOC limit has been taken in order to avoid PSD.

2. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of toluene and xylene were de minimis.

3. The most recent stack test for the Regenerative Thermal Oxidizer (C-KAC-14-723) was performed on October 25, 2006. The stack test results demonstrated that the RTO achieved 98.2% destruction efficiency at a minimum temperature of 1500°F. This test is required every 10 years (see Appendix A).

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-Load Emission Unit Description**:** KAC rail and truck loading facilities

**U-KAC-Load Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 6.22 | Standard of Performance for Existing Volatile Organic Materials Loading Facilities | 1 through 3 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Load Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-151 and 14-130 | KAC R/C Load/Unload Rack East and West | 1.05 | NONE | N/A | 14-151 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a. | | |
| 14-366 | KAC Recycle Solvent Load Spot 0 | 1.05 | NONE | N/A | 14-366 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a. | | |
| 14-390 | KAC T/T Load/Unload Rack Spots 1, 2, 3 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 or 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a. | | |
| 14-530 | KAC T/T Load/Unload Rack Brick Pad | 1.05 | NONE | N/A | 14-530 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a. | | |

## U-KAC-Load Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

The owner or operator of any loading facility from which more than 200 gallons but less than 20,000 gallons of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank truck, trailer, or railroad car from any loading facility unless such loading is accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. "Volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions. (Regulation 6.22, section 3.1) (See Comments 1 and 2)

b. **HAP**

i. For Emission Point 14-390, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) except as described in Appendix A, S1.a.ix.
(Construction Permit 263-05-C, dated October 31, 2005)

ii. See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 3)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. The owner or operator shall keep daily records of the total volatile organic material (VOM) with a vapor pressure greater than or equal to 1.5 psia under actual storage conditions loaded for each of the Emission Points 14-151, 14-130, 14-366, 14-390, 14-530 on days that VOM loading occurs.

ii. The owner or operator of Emission Points 14-151, 14-130, 14-366, 14-390, 14-530 shall maintain a list of the materials that are loaded and the corresponding vapor pressure and if a material is changed to a material not on the list then a record shall be made of the new material in order to demonstrate compliance with S1.a.

b. **HAP**

i. For Emission Point 14-390, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) monitoring and recordkeeping requirements.

ii. See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. The beginning and ending date of the reporting period;

ii. Identification of all periods of exceedance of the throughput limit in S1.a. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

iii. Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

b. **HAP**

i. For Emission Points 14-390, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) reporting requirements.

ii. See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

## U-KAC-Load Comments

1. Regulation 6.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to

either regulation. There are no standards if the source loads less than 200 gallons per day of "volatile organic material" in Regulation 6.22.

2. For Emission Point 14-390 all loading is accomplished by using submerged fill.

3. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of toluene and xylene were de minimis.

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-Powder Emission Unit Description**:** KAC equipment controlled by fabric filters

**U-KAC-Powder Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 6.09 | Standards of Performance for Existing Process Operations | 1 through 3, and 5 |

| U-KAC-Powder Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-430 | KAC Dryer | 2.05 | See S1.a.iii | 14-460 (Fabric filter) | 14-460 |
| | | 6.09 | 6.00 lbs/hr (total for 14-430 and 14-484) | | |
| | | 6.09 | < 20% | | |
| 14-445 | KAC Pellet Transfer System | 6.09 | 2.58 lbs/hr | 14-451 (Fabric filter) and 14-446 (Fabric filter) | 14-451 and 14-446 |
| | | 6.09 | < 20% | | |
| 14-484 | KAC Grinder and Yield Recovery System | 2.05 | See S1.a.ii | 14-460 (Fabric filter) | 14-460 |
| | | 6.09 | 6.00 lbs/hr (total for 14-430 and 14-484) | | |
| | | 6.09 | < 20% | | |

**U-KAC-Powder Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **PM/$PM_{10}$**

i. For Emission Point 14-445, the owner or operator shall not allow PM emissions to exceed 2.58 lb/hr. (Regulation 6.09, section 3.2)

ii. For Emission Points 14-430 and 14-484, the owner or operator shall not allow PM emissions to exceed 6.0 lb/hr total.
(Construction Permit 151-99-C, dated June 15, 1999)
(Regulation 6.09, section 3.2)

iii. For Emission Points 14-430 and 14-484, the owner or operator shall not allow emissions to exceed 25 tons per 12 consecutive month period of PM or 15 tons per 12 consecutive month period of $PM_{10}$.
(Regulation 2.05, section 1) (See Comment 1)

b. **Opacity**

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 6.09, section 3.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **PM/$PM_{10}$**

i. A preventive maintenance inspection of each control device (14-460, 14-451, and 14-446) shall be performed annually. This inspection shall consist of checking the clean air side tube sheet or dirty air side filter media visible from the access doors. If the check indicates leakage of particulate matter into the clean air side, further investigation shall be made to look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Change out of filter media (or repairs) shall be done as necessary.

ii. The owner or operator shall maintain records of preventive maintenance performed and the date it was performed.

iii. If there is any time that the control devices are not in operation when the process is operating, then the owner or operator shall keep a record of the following for each event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) PM emissions for each hour during the event in lb/hr;

5) Summary of the cause or reason for each event;

6) Corrective action taken to minimize the extent or duration of the event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

iv. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total $PM/PM_{10}$ emissions in order to show compliance with S1.a.iii.

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of Emission Points 14-430, 14-484, and 14-445. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in S2.b.i.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **$PM/PM_{10}$**

i. Emission unit ID number and emission point ID number;

ii. Identification of all times the control device is not in operation and exceeded the lb/hr PM limit. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

iii. Calculated lb/hr PM emissions during the event;

iv. Reason for excess emissions; and

v. Description of corrective action taken to prevent future exceedances;

vi. A negative declaration if no deviations occur during the reporting period;

vii. Identification of all times the control device inspections are missed; or

viii. A negative declaration if all the control device inspections are completed;

ix. Calculated 12 consecutive month total PM and $PM_{10}$ emissions for each month in the reporting period.

b. **Opacity**

i. Emission unit ID number and emission point or stack ID number;

ii. The beginning and ending date of the reporting period;

iii. The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration.

iv. The number of surveys where visible emissions were observed;

v. Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

S4. **Testing** (Regulation 2.16, section 4.3.1)

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **PM**

i. The owner or operator shall perform an EPA Reference Method 5 PM test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the performance test.

iii. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.

**U-KAC-Powder Comments**

1. The potential uncontrolled PM emissions are over 25 tons for both emission points. These emission limits ensure PSD avoidance.

2. The company conducted the required test on January 8, 2009. The maximum emissions during testing were found to be 0.056 lb/hr PM, which is lower than the emission standards.

3. The KAC dryer (Emission Point 14-430) is a fluidized bed unit and does not use gaseous fuel, therefore the $NO_x$ standard of Regulation 6.09 does not apply.

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-DryPack Emission Unit Description**:** KAC packaging and other equipment controlled by fabric filters

**U-KAC-DryPack Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| U-KAC-DryPack Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-429 | KAC Rework Drum/Bag Dump Hopper | 2.05 | See S1.a.ii | 14-429 (Fabric filter) | 14-429 |
| | | 7.08 | 1 lb/hr | | |
| | | | < 20% | | |
| 14-453 | KAC Dry Packaging Area Spot Ventilation | 7.08 | 2.34 lb/hr | 14-503 (Fabric filter) | 14-503 |
| | | | < 20% | | |
| 14-497 | KAC Bulk Packaging System | 7.08 | 2.34 lbs/hr | 14-446 (Fabric filter) and 14-451 (Fabric filter) | 14-446 and 14-451 |
| | | | < 20% | | |
| 14-499 | KAC Rework Transfer System | 2.05 | See S1.a.ii | 14-499 (Fabric filter) | 14-499 |
| | | 7.08 | 1 lb/hr | | |
| | | | < 20% | | |
| 14-570 | KAC Rework Tote Dump Hopper | 2.05 | See S1.a.ii | 14-571 (Fabric filter) | 14-571 |
| | | 7.08 | 1 lb/hr | | |
| | | | < 20% | | |

**U-KAC-DryPack Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **$PM/PM_{10}$**

i. For Emission Points 14-497 and 14-453, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr each.
(Regulation 7.08, section 3.1.2)

ii. For Emission Points 14-429, 14-499, 14-570, the owner or operator shall not allow PM emissions to exceed 1.0 lb/hr each.
(Construction Permit 58-98-C and 59-98-C) (Regulation 2.05, section 1)
(Regulation 7.08, section 3.1.2) (See Comments 1 and 2)

b. **Opacity**

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **$PM/PM_{10}$**

i. A preventive maintenance inspection of each control device (14-429, 14-503, 14-446, 14-499, and 14-571) shall be performed annually. This inspection shall consist of checking the clean air side tube sheet or dirty air side filter media visible from the access doors. If the check indicates leakage of particulate matter into the clean air side, further investigation shall be made to look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Change out of filter media (or repairs) shall be done as necessary.

ii. The owner or operator shall maintain records of preventive maintenance performed and the date it was performed.

iii. If there is any time that the control devices are not in operation when the process is operating, then the owner or operator shall keep a record of the following for each event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) PM emissions for each hour during the event in lb/hr;

5) Summary of the cause or reason for each event;

6) Corrective action taken to minimize the extent or duration of the event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of the PM Emission

Points 14-429, 14-453, 14-497, 14-499, and 14-570. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in S2.b.i.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **$PM/PM_{10}$**

i. Emission unit ID number and emission point ID number;

ii. Identification of all times the control device is not in operation and exceeded the lb/hr PM limit. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

iii. Calculated lb/hr PM emissions during the event;

iv. Reason for excess emissions; and

v. Description of corrective action taken to prevent future exceedances.

vi. A negative declaration if no deviations occur during the reporting period.

vii. Identification of all times the control device inspections are missed; or

viii. A negative declaration if all the control device inspections are completed.

b. **Opacity**

i. Emission unit ID number and emission point or stack ID number;

ii. The beginning and ending date of the reporting period;

iii. The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

iv. The number of surveys where visible emissions were observed;

v. Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

S4. **Testing** (Regulation 2.16, section 4.3.1)

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **PM**

i. The owner or operator shall perform an EPA Reference Method 5 PM test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the performance test.

iii. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.

c. **Opacity**

The owner or operator shall demonstrate compliance with the opacity limit by initially conducting a test in accordance with Method 9 of 40 CFR 60 Appendix A contemporaneously with the Method 5 PM performance test. The test shall be performed at maximum capacity or allowable/permitted capacity or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test at these conditions may necessitate a re-test. The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be 30 minutes ((5) - 6-minute averages).

**U-KAC-DryPack Comments**

1. The potential uncontrolled PM emissions are over 25 tons for Emission Points 14-429, 14-499, and 14-570. These emission limits ensure PSD avoidance.

2. The potential uncontrolled PM emissions can exceed the lb/hr emission standard, therefore, the permit contains control device by-pass language and stack testing requirements in order to ensure on-going compliance.

3. The company conducted the required test on January 8, 2009. The maximum controlled emissions during testing were found to be 0.056 lb/hr PM, which is lower than the emission standards. A minimum control device efficiency of 68.2% at maximum production is needed to meet the standard.

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-Misc Emission Unit Description**:** KAC equipment with unique requirements

**U-KAC-Misc Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 6.26 | Standard of Performance for Existing Volatile Organic Compound Water Separators | 1 though 4 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KAC-Misc Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 14-063 | KAC Oil/Water Separator 5,000 gal 1972 | 1.05 | NONE | N/A | 14-063 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.26 | See S1.a.v. | | |
| 14-175 | KAC Wastewater Equalization Tank 42,000 gal 1991 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | N/A | 14-175 |
| 14-181 | KAC Wastewater Stripper | 1.05 | NONE | 14-185 (Thermal Oxidizer) | 14-185 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | BACT; 2 lbs/hr and 1 ton/year | | |
| 14-238 | KAC Weigh Tank 55 gal 1992 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | N/A | 14-238 |
| 14-258 | KAC Reactor | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 and 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | BACT; 5 tons/yr | | |
| 14-286 | KAC Process Tank 1,000 gal 1995 | 1.05 | NONE | N/A | 14-286 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | BACT; 1.4 tons/yr | | |
| 14-705 | KAC Product Loading Station | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 and 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | BACT; 1 ton/yr (total for 14-705 and 14-706) | | |
| 14-706 | KAC Product Loading Station | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) | 14-723 and 14-721 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |

| U-KAC-Misc Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| | | 7.25 | BACT; 1 ton/yr (total for 14-705 and 14-706) | | |

**U-KAC-Misc Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. The owner or operator shall not allow VOC emissions from Emission Point 14-181 to exceed 2.0 lb/hr and 1.0 tpy.
(Construction Permit 101-90-C, dated May 24, 1990)
(Regulation 7.25, section 3.1) (BACT) (See Comment 1)

ii. The owner or operator shall not allow VOC emissions from Emission Point 14-258 to exceed 5.0 tpy based on the BACT analysis dated May 2, 2002. (Construction Permit 187-04-C, dated November 30, 2004) (Regulation 7.25, section 3.1) (See Comment 2)

iii. For Emission Point 14-286:

1) The owner or operator shall not allow VOC emissions to exceed 1.4 tpy based on the BACT analysis dated July 3, 2001. (Construction Permit 232-02-C, dated March 1, 2003)
(Regulation 7.25, section 3.1) (See Comment 2)

2) The owner or operator shall close the vessel fill valve when the vessel temperature exceeds 65°F. (Regulation 7.25, section 3.1) (See Comment 2)

iv. The owner or operator shall not allow VOC emissions from Emission Points 14-705 and 14-706 to exceed 1.0 tpy total based on the BACT analysis dated April 17, 1997. (Regulation 7.25, section 3.1)
(See Comment 3)

v. For Emission Point 14-063, the owner or operator shall not recover 200 gallons a day or more of any volatile organic compounds from any equipment which processes, refines, stores, or handles hydrocarbons with a Reid vapor pressure of 0.5 pounds or greater, unless the emissions of all hydrocarbon vapors and gases are reduced 90% by weight. All gauging and sampling devices shall be gas tight except when gauging and/or sampling is in progress. Standards may be met by employing one or more of the following features: floating roof, submerged fill pipes, or a vapor recovery system. (Regulation 6.26, section 3)

vi. For Emission Points 14-258, 14-705, and 14-706, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) except as described in Appendix A, S1.a.ix.
(Construction Permit 263-05-C, dated October 31, 2005)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 4)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For Emission Point 14-181, there are no monitoring or recordkeeping requirements for this pollutant. (See Comment 1)

ii. For Emission Point 14-063, , the owner or operator shall maintain monthly records of the daily average quantity of VOCs removed having a Reid vapor pressure of 0.5 psia or greater.

iii. For Emission Point 14-286, preventive maintenance of the interlock shall be performed annually to confirm proper operation.

iv. For Emission Points 14-258, 14-705, and 14-706, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) monitoring and recordkeeping requirements.

b. **HAP**

i. For the thermal oxidizer (14-185), the owner or operator shall interlock the thermal oxidizer such that if its temperature falls below 1200°F, the air flow from the air stripper will be shut-down, precluding the release of excess VOCs/HAPs. Upon shutdown of the air flow (process) by the interlock system, corrective action shall be taken before operation resumes. Additionally, preventive maintenance on the interlock system shall be performed at least once per calendar year to monitor its proper operation. The owner or operator shall keep records of the date and description of corrective action taken and of preventive maintenance performed.

ii. See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Points 14-258, 14-705, and 14-706, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) reporting requirements.

ii. For Emission Point 14-063, the owner or operator must report any exceedance of the limit of S1.a.v as well as a description of any corrective action taken for each exceedance.

b. **HAP**

i. For the thermal oxidizer (14-185):

1) Emission Unit number and Emission Point;

2) The beginning and ending date of the reporting period;

3) Number and type of repairs instituted during the reporting period;

4) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

ii. See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**S4. Testing (Regulation 2.16, section 4.3.1)**

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **VOC**

i. The owner or operator shall perform a VOC performance test for control device 14-185, on the inlet and outlet of the control device or emission point to demonstrate compliance with the limits in S1.a.i. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. . A Protocol Checklist is listed in Appendix D which contains the information to be submitted in the protocol.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing. (See Comment 7)

**U-KAC-Misc Comments**

1. The source submitted a one-time demonstration dated October 2, 2006 showing the VOC standards cannot be exceeded uncontrolled. The District will require the monitoring, recordkeeping, and reporting of the Thermal Oxidizer (14-185) in order to calculate the HAP emissions.

2. The source submitted a BACT analysis dated July 3, 2001, which demonstrated that the potential uncontrolled VOC emissions cannot exceed the limits.

3. The source submitted a BACT analysis dated April 17, 1997, which demonstrated that the potential uncontrolled VOC emissions cannot exceed the limits.

4. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of toluene and xylene were de minimis.

5. The potential uncontrolled VOC emissions for the project to install these emission points (14-175 and 14-181) was <4 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

6. The potential uncontrolled $NO_x$ emissions for the project to install this control device (14-185) for emission point (14-181) was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

7. The potential uncontrolled VOC emissions for the project to install these emission points (14-258, 14-395, and 14-540) was <16.1 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

8. The potential uncontrolled VOC emissions for the project to install this emission point (14-286) was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

9. The potential uncontrolled VOC emissions for the project to install these emission points (14-705 and 14-706) was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

**KAC PRODUCTION UNIT:** Production of Coatings and Resins (Continued)

U-KAC-D-PKG Emission Unit Description**:** KAC-D packaging and rework equipment controlled by fabric filters

**U-KAC-D-PKG Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| U-KAC-D-PKG Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KAC-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KAC-" Prefix)** | **Stack ID ("S-KAC-" Prefix)** |
| 19-195 | KAC-D Product Transfer Receiver #1 | 2.05 | See S1.a.i | 19-195 (Fabric Filter) | 19-195 |
| | | 7.08 | 4.5 lbs/hr (total for U-KAC-D-PKG) | | |
| | | | < 20% | | |
| 19-215 | KAC-D Product Transfer Receiver #3 | 2.05 | See S1.a.i | 19-215 (Fabric Filter) | 19-215 |
| | | 7.08 | 4.5 lbs/hr (total for U-KAC-D-PKG) | | |
| | | | < 20% | | |
| 19-265 | KAC-D Rework Bag/Drum Dump Station | 2.05 | See S1.a.i | 19-265 (Fabric Filter) | 19-265 |
| | | 7.08 | 4.5 lbs/hr (total for U-KAC-D-PKG) | | |
| | | | < 20% | | |
| 19-285 | KAC-D Tote Dump Station | 2.05 | See S1.a.i | 19-225 (Fabric Filter) | 19-225 |
| | | 7.08 | 4.5 lbs/hr (total for U-KAC-D-PKG) | | |
| | | | < 20% | | |
| 19-375 | Packaging System | 2.05 | See S1.a.i<br>See S1.a.ii | 19-376 (Fabric Filter) | 19-376 |
| | | 7.08 | 2.3 lbs/hr | | |
| | | | <20% | | |

## U-KAC-D-PKG Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **PM/$PM_{10}$**

i. For Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375, the owner or operator shall not allow the combined PM emissions to exceed 4.5 lb/hr and 25 tons per 12 consecutive month period combined. In addition, $PM_{10}$ emissions shall not exceed 15 tons per 12 consecutive month period combined.
(Construction Permit 11-99-C, dated January 18, 1999)
(Regulation 7.08, section 3.1.2) (Regulation 2.05, section 1)
(See Comments 1, 2, and 3)

ii. For Emission Point 19-375, the owner or operator shall not allow the PM emissions to exceed 2.34 lb/hr.
(Construction Permit 187-02-C, dated October 15, 2002)
(Regulation 7.08, section 3.1.2) (Regulation 2.05, section 1)
(See Comments 1, 2, and 3)

b. **Opacity**

The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **PM/$PM_{10}$**

i. For all emission points in KAC-D-PKG, a preventive maintenance inspection of each control device (19-195, 19-215, 19-225, 19-265, and 19-376) shall be performed annually. This inspection shall consist of checking the clean air side tube sheet or dirty air side filter media visible from the access doors. If the check indicates leakage of particulate matter into the clean air side, further investigation shall be made to look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Change out of filter media (or repairs) shall be done as necessary. Records shall be maintained of preventive maintenance performed and the date it was performed.

ii. If there is any time that the control devices are not in operation when the process is operating, then the owner or operator shall keep a record of the following for each event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) PM emissions for each hour during the event in lb/hr;

5) Summary of the cause or reason for each event;

6) Corrective action taken to minimize the extent or duration of the event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the event.

iii. For Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375, the owner or operator shall monthly calculate and record the monthly and 12 consecutive month PM and $PM_{10}$ emissions in order to demonstrate compliance with S1.a.i.

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of the PM Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in S2.b.i.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **PM/$PM_{10}$**

i. For all emission points in KAC-D-PKG:

1) Emission unit ID number and emission point ID number;

2) Identification of all times the control device is not in operation and exceeded the lb/hr PM limit. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

3) Calculated lb/hr PM emissions during the event;

4) Reason for excess emissions; and

5) Description of corrective action taken to prevent future exceedances.

6) A negative declaration if no deviations occur during the reporting period.

7) Identification of all times the control device inspections are missed; or

8) A negative declaration if all the control device inspections are completed.

i. For Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) The monthly and 12 consecutive month PM and $PM_{10}$ emissions for each month in the reporting period;

4) Identification of all periods of exceedance of the PM and $PM_{10}$ emission limits in S1.a.i. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

5) Description of any corrective action taken for each exceedance. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

b. **Opacity**

i. Emission unit ID number and emission point or stack ID number;

ii. The beginning and ending date of the reporting period;

iii. The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

iv. The number of surveys where visible emissions were observed;

v. Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

S4. **Testing (Regulation 2.16, section 4.3.1)**

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days

prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **PM**

i. The owner or operator shall perform an EPA Reference Method 5 PM test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the performance test.

iii. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.

c. **Opacity**

The owner or operator shall demonstrate compliance with the opacity limit by initially conducting a test in accordance with Method 9 of 40 CFR 60 Appendix A contemporaneously with the Method 5 PM. The test shall be performed at maximum capacity or allowable/permitted capacity or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test at these conditions may necessitate a re-test. The maximum 6-minute average opacity exhibited during the test period shall be used to determine

whether the affected source is in initial compliance with the standard. The duration of the Method 9 performance test shall be 30 minutes ((5) - 6-minute averages).

**U-KAC-D-PKG Comments**

1. The potential uncontrolled PM emissions can exceed the lb/hr emission standard, therefore, the permit contains control device by-pass language and stack testing requirements in order to ensure on-going compliance.

2. A EPA Reference Method 5 stack test was performed for the KAC Packaging System on January 8, 2009 (for Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375) as required by the previous version of this permit in order to demonstrate compliance with the emission standards. It was found that the maximum controlled emissions during testing were well under the emission standards of 2.3 lb/hr PM for Emission Point 19-375 and 4.5 lb/hr PM for Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375. The maximum emissions were 0.056 lb/hr and 0.75 lb/hr, respectively.

3. The limit of 25 tons per year of PM and 15 tons per year of $PM_{10}$ is to avoid PSD/Nonattainment NSR for Emission Points 19-195, 19-215, 19-265, 19-285, and 19-375.

**KB PRODUCTION UNIT: Methyl Methacrylate Distillation**

U-KB-Columns+ Emission Unit Description**:** KB equipment with unique requirements

**U-KB-Columns+ Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 2.04 | Construction or Modification of Major Sources in or Impacting upon Non-Attainment Areas (Emission Offset Requirements) | 1 through 6 |
| 6.22 | Standard of Performance for Existing Volatile Organic Materials Loading Facilities | 1 through 3 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, 7 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |
| 7.22 | Standard of Performance for New Volatile Organic Materials Loading Facilities | 1 through 3 |
| 40 CFR 60 Subpart Kb | Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 | 60.110b (a , b, & d), & 60.116b (a & b) |
| 40 CFR 64 | Compliance Assurance Monitoring | All |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Number** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| 7.02 | Federal New Source Performance Standards Incorporated by Reference | 1, 2, 3.1, 3.23, 4, 5 |

| U-KB-Columns+ Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KB-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KB-" Prefix)** | **Stack ID ("S-KB-" Prefix)** |
| 03-810 | KB Distillation Columns (and process condenser 03-761) | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternate Thermal Oxidizer) | 14-723 or 14-726 or 14-727 |
| | | 2.04 | See S1.a.iii. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |
| | | 40 CFR 64 | See S2.a.i. | | |
| 04-500 | KB Load Rack | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a.ii. | | |
| 04-516 | KB Load Rack | 1.05 | NONE | | |
| | | 2.04 | See S1.a.iii. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a.ii. | | |
| 57-101-89 | KB Railcar Load Rack | 1.05 | NONE | N/A | 57-101-89 |
| | | 2.04 | See S1.a.iii. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.22 | See S1.a.ii. | | |
| 58-325 | KB Storage Tank 1,000,000 gal 1997 | 1.05 | NONE | N/A | 58-325 |
| | | 2.04 | See S1.a.iii. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | See S1.a.iii. | | |
| | | 7.02, 40 CFR 60 Subpart Kb | See S1.a.iii. | | |

**U-KB-Columns+ Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 03-810, the owner or operator shall limit VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%.
(Regulation 6.24, section 3.2 and 3.3) (See Comment 1)

ii. For Emission Points 04-516, 04-500, and 57-101-89, the owner or operator of any loading facility from which more than 200 gallons but less than 20,000 gallons of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank truck, trailer, or railroad car from any loading facility unless such loading is accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. "Volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions. (Construction Permit 257-05-C, dated October 31, 2005) (Regulation 6.22, section 3.1 and Regulation 7.22, section 3.1)
(See Comment 2)

iii. For Emission Points 03-810, 04-516, 57-101-89, 58-325, 03-770, 03-771, 03-785, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, 13-800, 58-101, 58-108, 58-109, and 58-140, the owner or operator shall limit the VOC emissions to less than 40 tons per 12 consecutive month period in order to avoid PSD/Non-attainment NSR. (Permit 182-04-C, dated November 30, 2004) (Regulation 2.04, section 5.1) (See Comment 3)

iv. For Emission Point 58-325,

1) The owner or operator shall ensure that there shall be no visible holes, tears, or other openings in the seal or any seal fabric. (Regulation 7.12, section 4.1)

2) The owner or operator shall ensure that all openings, except stub drains, shall be equipped with covers, lids, or seals such that: (Regulation 7.12, section 4.2)

(a) The cover, lid, or seal is in the closed position at all times except when in actual use; and

(b) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

(c) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

3) The owner or operator of storage vessel (58-325) shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:
(40 CFR 60.112b(a)(1))

(a) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. (40 CFR 60.112b(a)(1)(i))

(b) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
(40 CFR 60.112b(a)(1)(ii))

(i) A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
(40 CFR 60.112b(a)(1)(ii)(A))

(ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. (40 CFR 60.112b(a)(1)(ii)(B))

(iii) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
(40 CFR 60.112b(a)(1)(ii)(c)

(c) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. (40 CFR 60.112b(a)(1)(iii))

(d) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column

wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. (40 CFR 60.112b(a)(1)(iv))

(e) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. (40 CFR 60.112b(a)(1)(v))

(f) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. (40 CFR 60.112b(a)(1)(vi))

(g) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. (40 CFR 60.112b(a)(1)(vii))

(h) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. (40 CFR 60.112b(a)(1)(viii))

(i) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. (40 CFR 60.112b(a)(1)(ix))

v. For Emission Points 03-810, 04-516, and 04-500, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723). (Construction Permit 263-05-C, dated October 31, 2005)

vi. The owner or operator shall vent the VOC emissions from Emission Point 03-810 to a control device at all times the process is in operation. The VOC emissions shall be vented to the Alternate Thermal Oxidizer (C-KAC-14-726) during any bypassing of the RTO (C-KAC-17-723). (Construction Permit 523-07-C(R1, dated TBD)) (See Comment 4)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

i. The owner or operator shall not allow emissions of ethyl acrylate to exceed 1.5 lb/hr, 3.6 lb/day, or 1,314 lb/yr. (Regulation 5.21) (See Comment 5)

ii. The owner or operator shall not allow emissions of methyl methacrylate to exceed 378 lb/hr or 336,000 lb/yr. (Regulation 5.21) (See Comment 5)

iii. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established

by modeling or determined by the District to be *de minimis*. (Regulations 5.00 and 5.21) (See Comment 5)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. The owner or operator shall maintain a record of the start and stop time of the process and the start and stop times when VOC emissions are being vented to each of the control devices.

ii. For Emission Points 03-810, 04-516, 57-101-89, 58-325, 03-770, 03-771, 03-785, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, 13-800, 58-101, 58-108, 58-109, and 58-140, the owner or operator shall calculate the combined monthly and 12 consecutive month VOC emissions for each month.

iii. The owner or operator of storage vessel (58-325) shall:

1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel. (40 CFR 60.113b(a)(1))

2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the District in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. (40 CFR 60.113b(a)(2))

3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B): (40 CFR 60.113b(a)(3))

(a) Visually inspect the vessel as specified in S2.a.iv.1) at least every 5 years; or (40 CFR 60.113b(a)(3)(i))

(b) Visually inspect the vessel as specified in S2.a.iv.2). (40 CFR 60.113b(a)(3)(ii))

4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in S2.a.iv.1) and S2.a.iv.2) and at intervals no greater than 5 years in the case of vessels specified in S2.a.iv.3)(a). (40 CFR 60.113b(a)(4))

5) Notify the District in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by S2.a.iv.1) and 4) to afford the District the opportunity to have an observer present. If the inspection required by S2.a.iv.4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the District at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the District at least 7 days prior to the refilling. (40 CFR 60.113b(a)(5))

6) Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. (40 CFR 60.115a(a) and 40 CFR 60.116b(c))

7) Keep a record of each inspection performed as required by 40 CFR 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). (40 CFR 60.115b(a)(2))

iv. For Emission Points 04-516, 04-500, and 57-101-89:

1) The owner or operator shall keep daily records of the total volatile organic material (VOM) with a vapor pressure greater than or equal to 1.5 psia under actual storage conditions loaded on days that VOM loading occurs.

2) The owner or operator shall maintain a list of the materials that are loaded and the corresponding vapor pressure and if a material is

changed to a material not on the list then a record shall be made of the new material in order to demonstrate compliance with S1.a.ii.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall monthly calculate and record the ethyl acrylate emissions to demonstrate compliance with S1.c.i.

ii. The owner or operator shall monthly calculate and record the methyl methacrylate emissions to demonstrate compliance with S1.c.ii.

iii. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

iv. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Points 03-810, 04-516, 57-101-89, 58-325, 03-770, 03-771, 03-785, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, 13-800, 58-101, 58-108, 58-109, and 58-140:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Identification of all periods of exceedance of the VOC emission limit and the operating parameters. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

5) The monthly and 12 consecutive month VOC emissions;

6) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

ii. For Emission Point 03-810 when venting emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) See Appendix A (See Comment 9)

iii. For storage vessel (58-325):

1) Furnish the District with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3). (40 CFR 60.115b(a)(1))

2) If any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), a report shall be furnished to the District within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
(40 CFR 60.115b(a)(3))

3) After each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii), a report shall be furnished to the District within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. (40 CFR 60.115b(a)(4))

iv. For Emission Point 03-810:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Identification of all periods of exceedance of the VOC limit of S1.a.i and the operating parameters. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

5) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. Emission Unit number and Emission Point number;

ii. The beginning and ending date of the reporting period

iii. Identification of all periods of exceedance of the emissions in S1.c. If no exceedance occurred during the reporting period, the owner or operator shall submit a negative declaration;

iv. Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

v. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

vi. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

vii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.iv.

**U-KB-Columns+ Comments**

1. If the source is venting the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723), the RTO is assumed to attain at least an average thermal efficiency of 95% VOC destruction efficiency and to meet the reduction requirements of 85% for Regulation 6.24, for Emission Points (03-810).

2. Regulations 6.22 and 7.22 apply only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to either regulation. There are no standards if the source loads less than 200 gallons per day of "volatile organic material" in Regulation 6.22 and 7.22. These loading facilities have submerged fill.

3. The 40 tons per 12 consecutive month period VOC limit has been taken in order to avoid PSD.

4. Permit 263-05-C allows VOC emissions to bypass the RTO and ATO for 1.2 hours during any twenty four hour day, for all the emission points listed except Emission Point 03-810, which can never be bypassed. Emission Point 03-810 is equipped with a condenser that operate whenever this emission point is in operation, therefore emission point 03-810 should always be controlled. The twenty-four hour day is the day starting at 00:00:00 AM and running to 23:59:59 PM. Specific Condition S1.a.vi requires the VOC emissions during the times the RTO is being bypassed to be vented to the Alternate Thermal Oxidizer (C-KAC-14-726) for Emission Point 03-810.

5. The District determined on March 13, 2013 that potential individual TAC emissions of ethyl acrylate and methyl methacrylate were not de minimis uncontrolled, however were de minimis controlled. The limits ensure that the emissions do not exceed de minimis levels.

6. The most recent stack test was performed on the Regenerative Thermal Oxidizer on October 26, 2006 and demonstrated a destruction efficiency of 98.2% at 1500°F.

7. The potential uncontrolled VOC emissions for the project to install emission point 57-101-89 was <3 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

8. The potential controlled VOC emissions (with internal floating roof inherent to tank operation) for the project to install emission point 58-325 was <1 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

9. The source is major for VOC and a control device is needed to achieve compliance with District Regulation 6.24 for Emission Point E-KB-03-810. In accordance with 40 CFR 64, Compliance Assurance Monitoring for Major Stationary Sources, the source was

required to propose a CAM plan for VOC, based on current process and control device requirements and practices. The revised CAM plan was received on April 17, 2014.

10. The controlled potential VOC emissions for the project are below the significant level of 40 tpy for PSD/Non-attainment NSR. Therefore, the permit contains a PSD/Non-attainment NSR avoidance limit that they will demonstrate compliance with as described in the permit.(Construction Permit 523-07-C(R1))

**KB PRODUCTION UNIT:** Methyl Methacrylate Distillation (Continued)

U-KB-Tanks1 Emission Unit Description**:** KB tanks

**U-KB-Tanks1 Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 6.13 | Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds | 1 through 3 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, and 7 |
| 6.43 | Volatile Organic Compound Emission Reduction Requirements | 1 through 4; and 18 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KB-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KB-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KB-" Prefix)** | **Stack ID ("S-KB-" Prefix)** |
| 03-770 | KB Mix Tank #1 500 gal 1966 | 1.05 | NONE | N/A | 03-770 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.iii. | | |
| 03-771 | KB Storage Tank 500 gal 1962 | 1.05 | NONE | | 03-771 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-785 | KB Mix Tank #3 500 gal 1974 | 1.05 | NONE | | 03-785 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.iii. | | |
| 03-792 | KB Transfer System for Tank (14-785) (Insignificant Activity – de minimis for STAR) | 7.08 | 2.34 lbs/hr | | 03-792 |
| | | 7.08 | < 20% | | |
| 03-801 | KB Decant Tank 6,600 gal 1962 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternative Thermal Oxidizer) | 14-723 or 14-726 or 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-850 | KB Rundown Tank 10,000 gal 1966 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-851 | KB Rundown Tank 10,000 gal 1966 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |

| U-KB-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KB-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KB-" Prefix)** | **Stack ID ("S-KB-" Prefix)** |
| 03-860 | KB Rundown Tank 10,000 gal 1966 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternative Thermal Oxidizer) | 14-723 or 14-726 or 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-880 | KB Decant Tank 6,600 gal 1962 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-881 | KB Decant Tank 6,600 gal 1962 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-930 | KB Rundown Tank 7,200 gal 1962 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 03-931 | KB Rundown Tank 7,200 gal 1962 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 04-521 | KB Storage Tank 32,600 gal 1966 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternative Thermal Oxidizer) | 14-723 or 14-726 or 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | Submerged fill or equivalent | | |

| U-KB-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KB-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KB-" Prefix)** | **Stack ID ("S-KB-" Prefix)** |
| 04-525 | KB Storage Tank 32,600 gal 1966 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternative Thermal Oxidizer) | 14-723 or 14-726 or 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | Submerged fill or equivalent | | |
| 04-880 | KB Storage Tank 30,000 gal 1962 | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | Submerged fill | | |
| 13-800 | KB Storage Tank 96,600 gal 1970 | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternative Thermal Oxidizer) | 14-723 or 14-726 or 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 58-101 | KB Storage Tank 1,470,000 gal 1962 | 1.05 | NONE | N/A | 58-101 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 58-108 | KB Storage Tank 1,470,000 gal 1966 | 1.05 | NONE | N/A | 58-108 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| | | 6.43 | Internal floating roof | | |
| 58-109 | KB Storage Tank 1,470,000 gal 1966 | 1.05 | NONE | N/A | 58-109 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| | | 6.43 | Internal floating roof | | |
| 58-140 | KB Storage Tank 1,470,000 gal 1960 | 1.05 | NONE | N/A | 58-140 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |

| U-KB-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KB-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KB-" Prefix)** | **Stack ID ("S-KB-" Prefix)** |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| | | 6.43 | Internal floating roof | | |

**U-KB-Tanks1 Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For storage tanks 03-771, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 13-800, 58-101, 58-108, 58-109, and 58-140, there are no equipment standards that apply due to the vapor pressure as stored being less than 1.5 psia. (Regulation 6.13, section 3) (See Comment 1)

ii. For storage tanks 04-521, 04-525, and 04-880, the owner or operator shall equip the storage vessels with a permanent submerged fill pipe or equivalent. (Regulation 6.13, section 3.3)

iii. For process vessels 03-770 and 03-785, the owner or operator shall limit VOC emissions from each emission point to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%. (Regulation 6.24, section 3.2 and 3.3) (See Comment 2)

iv. For storage tanks 58-108, 58-109, and 58-140, the owner or operator shall equip each storage vessel with an internal floating roof.
(Regulation 6.43, section 18.1)

v. For storage tanks 58-108, 58-109, and 58-140, the owner or operator shall comply with the following requirements of 40 CFR 60.112b(a)(1): (Regulation 6.43, section 18.2)

1) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. (40 CFR 60.112b(a)(1)(i))

2) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
(40 CFR 60.112b(a)(1)(ii))

(a) A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. (40 CFR 60.112b(a)(1)(ii)(A))

(b) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-

mounted, but both must be continuous.
(40 CFR 60.112b(a)(1)(ii)(B))

(c) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. (40 CFR 60.112b(a)(1)(ii)(C))

3) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
(40 CFR 60.112b(a)(1)(iii))

4) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. (40 CFR 60.112b(a)(1)(iv))

5) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
(40 CFR 60.112b(a)(1)(v))

6) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. (40 CFR 60.112b(a)(1)(vi))

7) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
(40 CFR 60.112b(a)(1)(vii))

8) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
(40 CFR 60.112b(a)(1)(viii))

9) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
(40 CFR 60.112b(a)(1)(ix))

vi. For Emission Points 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, and 13-800, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) or the Alternative Thermal Oxidizer (ATO) as described in the Table.
(Construction Permits 263-05-C and 264-05-C, dated October 31, 2005)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 3)

d. **PM**

For Emission Point 03-792, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2) (See Comment 4)

e. **Opacity**

For Emission Point 03-792, the owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)
(See Comment 6)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For storage tanks 03-771, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 13-800, 58-101, 58-108, 58-109, and 58-140, the owner or operator shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.i.

ii. For Emission Points 58-108, 58-109, and 58-140, the owner or operator shall keep records of the total pounds filled per tank monthly.
(Regulation 6.43, section 18.3)

iii. For Emission Points 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, and 13-800, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) and Alternative Thermal Oxidizer (C-KAC-14-726) monitoring and recordkeeping requirements.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

d. **PM**

There are no compliance monitoring or recordkeeping requirements.

e. **Opacity**

There are no compliance monitoring or recordkeeping requirements.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

For Emission Points 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, and 13-800, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) and Alternative Thermal Oxidizer (C-KAC-14-726) reporting requirements.

b. **HAP**

See Appendix A for HAP monitoring requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

d. **PM**

There are no compliance reporting requirements for this equipment.

e. **Opacity**

There are no compliance reporting requirements for this equipment.

**U-KB-Tanks1 Comments**

1. For storage vessels 03-771, 03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, 13-800, 58-101, 58-108, 58-109, and 58-140, Regulation 6.13 applies due to the size of the tanks, but, since the vapor pressure as stored is less than 1.5 psia there are no applicable standards in the regulation.

2. The source submitted a one-time demonstration on August 1, 2003 that shows the potential VOC emissions cannot exceed the emission standards from Regulation 6.24 for Class II and Class III solvents for Emission Points 03-770 and 03-785. Therefore, there are no monitoring, recordkeeping, or reporting requirements for these emission points.

3. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of methyl methacrylate were de minimis.

4. The source submitted a one-time demonstration on August 1, 2003 that shows the potential uncontrolled PM emissions for emission point 03-792 cannot exceed the PM emission standard. This emission point is an insignificant activity and therefore de minimis for STAR.

5. The potential uncontrolled PM emissions for the project to install emission point 03-792 was <1 tpy which was below the significant level of 25 tpy of PM and 15 tpy of $PM_{10}$ for PSD/Nonattainment NSR.

6. The District has determined that an insignificant activity should not exceed the opacity standard, therefore, there are no monitoring, record keeping, or reporting requirements.

## KVK PRODUCTION UNIT: Plastic Additives

U-KVK-Tanks1 Emission Unit Description**:** KVK tanks

**U-KVK-Tanks1 Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5 |
| 7.12 | Standard of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVK-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 03-106 | KVK "G" Process Tank 1,500 gal 1973 | 1.05 | NONE | N/A | 03-106 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-118 | KVK "G" Process Tank 750 gal 1973 | 1.05 | NONE | N/A | 03-118 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-120 | KVK "G" Process Tank 750 gal 1973 | 1.05 | NONE | N/A | 03-120 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-205 | KVK Weigh Tank 15,000 gal 1973 | 1.05 | NONE | N/A | 03-205 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. <1.5 psia) | | |
| 03-206 | KVK "H" Process Tank 500 gal 1973 | 1.05 | NONE | N/A | 03-206 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-207 | KVK "H" Process Tank 750 gal 1973 | 1.05 | NONE | N/A | 03-207 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-209 | KVK "H" Process Tank 750 gal 1973 | 1.05 | NONE | N/A | 03-209 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-217 | KVK "H" Process Tank | 1.05 | NONE | N/A | 03-217 |

| U-KVK-Tanks1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| | 1,800 gal 1973 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-220 | KVK Process Tank 25,000 gal 1973 | 1.05 | NONE | N/A | 03-220 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |

## U-KVK-Tanks1 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For storage vessel 03-205, the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels. (Regulation 7.12, section 3)

ii. For Emission Points 03-106, 03-118, 03-120, 03-206, 03-207, 03-209, 03-217, and 03-220, the owner or operator shall limit VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%. (Regulation 6.24, section 3.2 and 3.3)
(See Comment 1)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

The owner or operator of storage vessel 03-205 shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessel are changed a record shall be made of the new contents in order to demonstrate compliance with S1.a.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.iiS2.c.ii.

**U-KVK-Tanks1 Comments**

1. The source submitted a one-time demonstration on August 1, 2003 that shows the potential VOC emissions cannot exceed the emission standards from Regulation 6.24 for Class II and Class III solvents for Emission Points 03-106, 03-118, 03-120, 03-206, 03-207, 03-209, 03-217, and 03-220 uncontrolled. Therefore, there are no monitoring, recordkeeping, or reporting requirements for these emission points.

2. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of acetophenone, 1,3-butadiene, cumene, ethyl acrylate, ethylbenzene, methyl metharylate, naphthalene, styrene, toluene, and xylene, were de minimis.

**KVK PRODUCTION UNIT:** Plastic Additives (Continued)

U-KVK-Tanks2 Emission Unit Description**:** KVK storage tanks with similar requirements

**U-KVK-Tanks2 Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 2, 3, 4, 5 |
| 6.13 | Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds | 1, 2, 3.3, 5 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVK-Tanks2 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 05-203 | KVK Storage Tank 12,143 gal 1972 | 1.05 | NONE | N/A | 05-203 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | Submerged fill | | |

| U-KVK-Tanks2 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 05-435 | KVK Product Storage Tank 40,000 gal 1966 | 1.05 | NONE | N/A | 05-435 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-440 | KVK Product Storage Tank 40,000 gal 1966 | 1.05 | NONE | N/A | 05-440 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-445 | KVK Product Storage Tank 40,000 gal 1966 | 1.05 | NONE | N/A | 05-445 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-450 | KVK Product Storage Tank 60,000 gal 1970 | 1.05 | NONE | N/A | 05-450 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-452 | KVK Product Storage Tank 60,000 gal 1970 | 1.05 | NONE | N/A | 05-452 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-454 | KVK Product Storage Tank 40,000 gal 1970 | 1.05 | NONE | N/A | 05-454 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-456 | KVK Product Storage Tank 40,000 gal 1970 | 1.05 | NONE | N/A | 05-456 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-458 | KVK Product Storage Tank 40,000 gal 1970 | 1.05 | NONE | N/A | 05-458 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |

| U-KVK-Tanks2 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 05-465 | KVK Product Storage Tank 30,000 gal 1970 | 1.05 | NONE | N/A | 05-465 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-467 | KVK Product Storage Tank 30,000 gal 1970 | 1.05 | NONE | N/A | 05-467 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-469 | KVK Product Storage Tank 30,000 gal 1970 | 1.05 | NONE | N/A | 05-469 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-471 | KVK Product Storage Tank 100,000 gal 1972 | 1.05 | NONE | N/A | 05-471 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-473 | KVK Product Storage Tank 30,000 gal 1976 | 1.05 | NONE | N/A | 05-473 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-475 | KVK Product Storage Tank 30,000 gal 1976 | 1.05 | NONE | N/A | 05-475 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |
| 05-477 | KVK Product Storage Tank 30,000 gal 1976 | 1.05 | NONE | N/A | 05-477 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | See S1.a.ii. | | |

## U-KVK-Tanks2 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 05-203, the owner or operator shall equip the storage vessels with a permanent submerged fill pipe.
(Regulation 6.13, section 3.3) (See Comment 1)

ii. For Emission Points 05-435, 05-440, 05-445, 05-450, 05-452, 05-454, 05-456, 05-458, 05-465, 05-467, 05-469, 05-471, 05-473, 05-475, and 05-477, the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels unless equipped with submerged fill. (Regulation 6.13, section 3)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

The owner or operator of the storage vessels shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KVK-Tanks2 Comments**

1. Emission Point 05-203 is equipped with a permanent submerged fill pipe.
2. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of acetophenone, 1,3-butadiene, cumene, ethyl acrylate, ethylbenzene, methyl metharylate, naphthalene, styrene, toluene, and xylene, were de minimis.

**KVK PRODUCTION UNIT:** Plastic Additives (Continued)

U-KVK-G&HReact Emission Unit Description**:** KVK G & H Reactor Systems

**U-KVK-G&HReact Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, and 7 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVK-G&HReact Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 03-100 | KVK "G" Reactor | 1.05 | NONE | 14-723 (Regenerative Thermal Oxidizer) or 14-726 (Alternative Thermal Oxidizer) | 14-723, 14-726, 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |
| 03-112 | "G" Mix Tank 100 gal 1988 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | N/A | 03-112 |
| | | 7.25 | See S1.a.ii. | | |
| 03-115 | KVK "G" Mix/Feed Tank | 1.05 | NONE | 14-723 or 14-726 | 14-723, 14-726, 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |
| 03-200 | KVK "H" Reactor | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |
| 03-210 | "H" Mix Tank 100 gal 1988 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | N/A | 03-210 |
| | | 7.25 | See S1.a.ii. | | |
| 03-215 | KVK "H" Mix/Feed Tank 12,400 gal 1973 | 1.05 | NONE | 14-723 or 14-726 | 14-723, 14-726, 14-727 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |

## U-KVK-G&HReact Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Points 03-100, 03-115, 03-200, and 03-215, the owner or operator shall limit VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%. The District has determined that the use of the Regenerative Thermal Oxidizer (C-KAC-14-723) or the Alternative Thermal Oxidizer (C-KAC-14-726) except as described in Appendix A, S1.a.ix meets the 85% reduction requirement for Regulation 6.24. (Regulation 6.24, section 3.2 and 3.3)

ii. For Emission Points 03-112 and 03-210, See Appendix E.
(See Comment 1)

iii. For Emission Points 03-100, 03-115, 03-200, and 03-215, the owner or operator shall vent the emissions to the Regenerative Thermal Oxidizer (C-KAC-14-723) or the Alternative Thermal Oxidizer (ATO) as described in the Table.
(Construction Permits 263-05-C and 264-05-C, dated October 31, 2005)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For Emission Points 03-112 and 03-210: see Attachment E.

ii. For Emission Points 03-100, 03-115, 03-200, and 03-215, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) and Alternative Thermal Oxidizer (ATO) monitoring and recordkeeping requirements.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is

introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Points For Emission Points 03-112 and 03-210: See Appendix E.

ii. For Emission Points 03-100, 03-115, 03-200, and 03-215, see Appendix A for Regenerative Thermal Oxidizer (C-KAC-14-723) and Alternative Thermal Oxidizer (ATO) reporting requirements.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KVK-G&HReact Comments**

1. A BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 for any emissions outside of the 5 tpy limit.
2. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of ethyl acrylate and methyl methacrylate were de minimis.
3. The potential uncontrolled VOC emissions for the project to install Emission Points 03-112 and 03-210 was 0.26 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

**KVK PRODUCTION UNIT:** Plastic Additives (Continued)

U-KVK-Misc Emission Unit Description**:** KVK equipment with unique regulations

**U-KVK-Misc Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 5.15 | Chemical Accident Prevention Provisions | 1 |
| 6.22 | Standard of Performance for Existing Volatile Organic Materials Loading Facilities | 1 through 5 |
| 6.24 | Standard of Performance for Existing Sources Using Organic Materials | 1 through 5, and 7 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |
| 7.22 | Standard of Performance for New Volatile Organic Materials Loading Facilities | 1 through 3 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVK-Misc Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 02-010 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-010 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-020 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-020 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-030 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-030 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-040 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-040 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-050 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-050 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-060 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-060 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-070 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-070 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 02-080 | KVK Product Storage Tank 60,000 gal 2001 | 1.05 | NONE | N/A | 02-080 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |

| U-KVK-Misc Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| | | 7.25 | See S1.a.ii. | | |
| 03-126 | KVK Storage Tank 60,000 gal 1977 | 1.05 | NONE | N/A | 03-126 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |
| 03-132 | KVK Storage Tank 150 gal 1990 | N/A (See Comment 6) | N/A. | N/A | 03-132 |
| 03-134 | KVK Process Tank 20 gal 2000 | 1.05 | NONE | N/A | 03-134 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 17-164 | KVK 164 Storage Tank 40,000 gal 1966 | 1.05 | NONE | N/A | 17-164 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.i. | | |
| Rail | KVK Rail Car Loading | 1.05 | NONE | N/A | Rail |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.22 | See S1.a.iii. | | |
| 05-215 | KVK BMA Storage Tank 15,000 gal 1983 | 1.05 | NONE | N/A | 05-215 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |
| 05-460 | KVK Load Racks 1-4 (East of Bldg 14) | 1.05 | NONE | N/A | 05-460 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a.iii. | | |

| U-KVK-Misc Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVK-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVK-" Prefix)** | **Stack ID ("S-KVK-" Prefix)** |
| 05-461 | KVK Rail Car Load Spots (Load Spot and Spare Spot) | 1.05 | NONE | N/A | 05-461 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.22 | See S1.a.iii. | | |
| 06-150 | Styrene Storage Tank 34,000 gal 1999 | 1.05 | NONE | N/A | 06-150 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |
| 66-226 | WWTP Storage Tank 2,000 gal 1990 | 1.05 | NONE | N/A | 66-226 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |

## U-KVK-Misc Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Points 03-126 and 17-164, the owner or operator shall limit VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%.
(Regulation 6.24, section 3.2 and 3.3) (See Comment 1)

ii. For Emission Points 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, and 03-134: See Appendix E. (See Comment 2)

iii. For Emission Points 05-460, 05-461, and Rail, the owner or operator of any loading facility from which more than 200 gallons but less than 20,000 gallons of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank truck, trailer, or railroad car from any loading facility unless such loading is accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. "Volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions.
(Regulation 6.22, section 3.1 and Regulation 7.22, section 3.1)
(See Comment 4)

iv. For Emission Points 05-215, 06-150, and 66-226, the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in storage vessels. (Regulation 7.12, section 3)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

i. The owner or operator shall not allow emissions of styrene to exceed 0.92 lb/hr, or 816.00 lb/yr. (Regulation 5.21) (See Comment 3)

ii. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 3)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For Emission Points For Emission Points 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, and 03-134: See Appendix E.

ii. For Emission Points 03-126 and 17-164, there are no compliance monitoring or recordkeeping requirements. (See Comment 1)

iii. For Emission Points 05-460, 05-461, and Rail:

1) The owner or operator shall keep a daily record of the throughput in gallons of each loading rack of volatile organic materials (VOM), which have a true vapor pressure of 1.5 psia or greater under actual storage conditions on days when loading occurs.

2) The owner or operator shall maintain a list of the materials that are loaded and the corresponding vapor pressure and if a material is changed to a material not on the list then a record shall be made of the new material in order to demonstrate compliance with S1.a.

iv. For Emission Points 05-215, 06-150, and 66-226, the owner or operator of the storage vessels shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall monthly calculate and record the styrene emissions to demonstrate compliance with S1.c.i.

ii. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

iii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Points 03-126, 17-164 and 66-226:

There are no compliance reporting requirements for this equipment.

ii. For Emission Points 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, and 03-134: See Appendix E.

iii. For Emission Points 05-460, 05-461, and Rail:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of all periods of exceedance of the throughput in S1.a.iii. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

## U-KVK-Misc Comments

1. The source submitted a one-time demonstration on August 1, 2003 that shows the potential uncontrolled VOC emissions cannot exceed the emission standards from Regulation 6.24 for Class II and Class III solvents for Emission Points 03-126 and 17-164. Therefore, there are no monitoring, recordkeeping, or reporting requirements for these emission points.
2. A BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 for any emissions outside of the 5 tpy limit.
3. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of acetophenone, 1,3-butadiene, cumene, ethyl acrylate, ethylbenzene, methyl metharylate, naphthalene, styrene, toluene, and xylene, were de minimis.
4. Regulation 7.22 applies only to the loading of volatile organic materials (VOMs), which are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions. VOCs which are not VOMs are not subject to either regulation. There are no standards if the source loads less than 200 gallons per day of "volatile organic material" in Regulation 7.22. These loading facilities have submerged fill.
5. Emission points 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, 03-126, and 17-164 are process tanks, however the source named them storage tanks in the Title V renewal application.

6. Emission point 03-132 is a VOC storage tank with a capacity of less than 250 gallons, therefore, there are no regulations that apply, but the PTE is 5.8985 tpy. This emission point is not an insignificant activity.

## KV-1 PRODUCTION UNIT: Plastic Additives

U-KV1-Feed1 Emission Unit Description**:** KV1 emulsion feed tanks with same requirements from 7.12

### U-KV1-Feed1 Applicable Regulations

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 6.13 | Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds | 1 through 3 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KV1-Feed1 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV1-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KV1-" Prefix)** | **Stack ID ("S-KV1-" Prefix)** |
| 05-670 | KV1 Storage Tank 10,000 gal 1966 | 1.05 | NONE | N/A | 05-670 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.13 | N/A (v.p. <1.5 psia) | | |
| 05-678 | KV1 North Storage Tank 5,000 gal 1975 | 1.05 | NONE | N/A | 05-678 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. <1.5 psia) | | |
| 05-679 | KV1 South Storage Tank 14,000 gal 1975 | 1.05 | NONE | N/A | 05-679 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. <1.5 psia) | | |
| 17-160 | KV1 Storage Tank 25,000 gal 1983 | 1.05 | NONE | N/A | 17-160 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. <1.5 psia) | | |
| 17-167 | KV1 Storage Tank 544 gal 1984 | 1.05 | NONE | N/A | 17-167 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. <1.5 psia) | | |

## U-KV1-Feed1 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels. (Regulations 6.13, section 3.3 and 7.12, section 3)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessel(s) are changed a record shall be made of the new contents, the new vapor pressure, and the date of the change in order to demonstrate compliance with Specific Condition S1.a.

ii. The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KV1-Feed1 Comments**

1. According to the company's plant wide PTE there are no TACs emitted from the equipment in this emission unit.
2. The potential uncontrolled VOC emissions for the project to install emission point 17-167 was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

**KV-1 PRODUCTION UNIT:** Plastic Additives (Continued)

U-KV1-Feed2 Emission Unit Description**:** KV1 tanks with the same requirements

**U-KV1-Feed2 Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KV1-Feed2 Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV1-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KV1-" Prefix)** | **Stack ID ("S-KV1-" Prefix)** |
| 05-690 | KV1 Feed Tank 14,000 gal 1986 | 1.05 | NONE | N/A | 05-690 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 05-691 | KV1 Feed Tank 14,000 gal 1986 | 1.05 | NONE | N/A | 05-691 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |
| 17-166 | KV1 Vibrating Filter | 1.05 | NONE | N/A | 17-166 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.ii. | | |

## U-KV1-Feed2 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

For Emission Points: 05-690, 05-691, and 17-166 See Appendix E. (Regulation 7.25, section 3.1) (See Comment 1)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Points 05-690, 05-691, and 17-166 see Appendix E.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

For Emission Points 05-690, 05-691, and 17-166: See Appendix E.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR

program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KV1-Feed2 Comments**

1. A BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 for any emissions outside of the 5 tpy limit.
2. According to the company's plant wide PTE there are no TACs emitted from the equipment in this emission unit.
3. The potential uncontrolled VOC emissions for the project to install these emission points (05-690 and 05-691) was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

**KV-1 PRODUCTION UNIT:** Plastic Additives (Continued)

U-KV1-Pack Emission Unit Description**:** KV-1 Product Packaging System

**U-KV1-Pack Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3, and 5 |

| U-KV1-Pack Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV1-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KV1-" Prefix)** | **Stack ID ("S-KV1-" Prefix)** |
| 05-874 | KV1 Bulk Bag Filling Station | 7.08 | 8.14 lb/hr<br>< 20% | N/A | N/A |

## U-KV1-Pack Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **PM**

The owner or operator shall not allow PM emissions to exceed 8.14 lb/hr. (Regulation 7.08, section 3.2)

b. **Opacity**

The owner or operator shall not allow the opacity to equal or exceed 20%. (Regulation 7.08, section 3.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **PM**

There are no compliance monitoring or recordkeeping requirements.
(See Comment)

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month of the fabric filter, C-KV1-05-850, during normal operation. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in S2.b.i.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **PM**

There are no compliance reporting requirements for this equipment.
(See Comment)

b. **Opacity**

i. Emission unit ID number and emission point or stack ID number;

ii. The beginning and ending date of the reporting period;

iii. The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

iv. The number of surveys where visible emissions were observed;

v. Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

**U-KV1-Pack Comment**

On March 13, 2013, The District determined that the potential uncontrolled PM emissions from 05-874 cannot exceed the PM emission standard.

**KVP-2 PRODUCTION UNIT: Plastic Additives Pelletizing System**

U-KVP2-PELL Emission Unit Description**:** KVP-2 Pelletizer System Emission Unit

**U-KVP2-PELL Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVP2-PELL Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVP2-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVP2-" Prefix)** | **Stack ID ("S-KVP2-" Prefix)** |
| 11-115 | KVP2 Bulk Dump Station | 2.05, 7.08 | 6.34 lbs/hr<br>< 20% | 11-250 (Fabric filter) | 11-250 |
| 11-124 | KVP2 50# Bag Dump Station | 2.05, 7.08 | 6.34 lbs/hr<br>< 20% | | |
| 11-154 | KVP2 Pelletizer System (Installed prior to Dec 17, 1987) and associated collector (11-250) | 1.05 | NONE | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 2.05, 7.08 | 6.34 lbs/hr<br>< 20% | | |
| | | 7.25 | BACT; 1.67 tons/yr | N/A | |
| 11-184 | KVP2 Flow Aid System | 2.05, 7.08 | 2.34 lbs/hr<br>< 20% | 11-250 (Fabric filter) | |
| 11-194 | KVP2 Pellet Rework Hopper System | 2.05, 7.08 | 2.34 lbs/hr<br>< 20% | | |
| 11-210 | KVP2 Pack-out Hopper System | 2.05, 7.08 | 6.34 lbs/hr<br>< 20% | | |
| 11-236 | KVP2 Rework System | 2.05, 7.08 | 6.34 lbs/hr<br>< 20% | | |

## U-KVP2-PELL Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 11-154, the owner or operator shall not allow VOC emissions to exceed 8.77 tons per 12 consecutive month period. (Construction Permit 378-06-C(R1), dated August 23, 2011)
(Regulation 7.25, section 3.1) (BACT)
(See Comment 1)

ii. For Emission Point 11-154, the owner or operator shall not allow VOC emissions to exceed 4.05 lb/hr.
(Construction Permit 378-06-C(R1), dated August 23, 2011)
(Regulation 7.25, section 3.1) (BACT) (See Comment 1)

iii. For Emission Point 11-154, the owner or operator shall not allow the VOC concentration of the product to exceed 1,013 ppm.
(Regulation 7.25, section 3.1) (BACT) (See Comment 1)

b. **PM/$PM_{10}$**

i. For Emission Points 11-115, 11-124, 11-154, 11-210, and 11-236, the owner or operator shall not allow the PM emissions to exceed 6.34 lb/hr each. (Construction Permit 144-86-C, dated July 8, 1986)
(Regulation 7.08, section 3.1.2) (See Comments 2 and 3)

ii. For Emission Points 11-184 and 11-194, the owner or operator shall not allow the PM emissions to exceed 2.34 lb/hr each.
(Construction Permit 144-86-C, dated July 8, 1986)
(Regulation 7.08, section 3.1.2) (See Comments 2 and 3)

iii. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 combined, the owner or operator shall not allow the $PM_{10}$ emissions to equal or exceed 15 tons per 12 consecutive month period. (Regulation 2.05) (See Comment 2)

c. **Opacity**

For Emission Points 11-115, 11-124, 11-154, 11-184, 11-194, 11-210, and 11-236, the owner or operator shall not allow the opacity to equal or exceed 20%. (Regulation 7.08, section 3.1.1)

d. **HAP**

See Appendix A for HAP standards.

e. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 4)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For Emission Point 11-154, the owner or operator shall keep a daily record of the amount of production from the pelletizer system for each batch.

ii. For Emission Point 11-154, the owner or operator shall monthly calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with S1.a.

iii. For Emission Point 11-154, the owner or operator shall sample at least once during each six month reporting period in order to verify that the product VOC concentration does not exceed the limit in S1.a.iii.

b. **PM/$PM_{10}$**

i. For Emission Points 11-115, 11-124, 11-154, 11-184, 11-194, 11-210, and 11-236: There are no compliance monitoring or record keeping requirements for this equipment to show compliance with the lb/hr PM emission standards. (See Comment 3)

ii. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 combined: The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total $PM_{10}$ emissions in order to show compliance with S1.b.iii.

c. **Opacity**

i. For Emission Points 11-115, 11-124, 11-154, 11-184, 11-194, 11-210, and 11-236, the owner or operator shall conduct a one-minute visible emissions survey once per month of the fabric filter (C-KVP2-11-250), during normal operation. No more than four Emission Points shall be observed simultaneously.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

d. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

e. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. Emission Unit number and Emission Point number;

ii. The beginning and ending date of the reporting period;

iii. Identification of all periods of exceedance of the VOC emission limit. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

iv. The monthly and 12 consecutive month VOC emissions;

v. Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration;

vi. For Emission Point 11-154, identification of all periods of exceedance of the product VOC concentration limit in S1.a.iii. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration.

b. **PM/$PM_{10}$**

i. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236: There are no compliance reporting requirements for this equipment to show compliance with the lb/hr PM emission standard.

ii. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 combined: The monthly and 12 consecutive month $PM_{10}$ emissions.

c. **Opacity**

i. Emission Unit number and Emission Point number;

ii. The beginning and ending date of the reporting period;

iii. The number of surveys where visible emissions were observed;

iv. The date, time, and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

v. Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

d. **HAP**

See Appendix A for HAP reporting requirements.

e. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.e.ii.

**U-KVP2-PELL Comments**

1. The company submitted a BACT analysis on 4/1/2011, which demonstrated no controls were economically feasible. The 2,000,000 lb/yr production of the worst case product with the remainder of the products being calculated as the second worst case product is how the 8.77 tpy limit was calculated. The lb/hr limit cannot be exceeded as long as the VOC concentration is less than the maximum concentration as shown in the April 1, 2011 permit application (1,013 ppm VOC).

2. The potential uncontrolled $PM_{10}$ emissions for the project to install these Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 is 19.16 tpy which is above the significant level of 15 tpy of $PM_{10}$ for PSD/Nonattainment NSR, therefore the permit contains a limit to avoid PSD/Nonattainment NSR.

3. The District determined on March 13, 2013 that potential uncontrolled PM emissions for Emission Points 11-115, 11-124, 11-154, 11-210, 11-236, 11-184 and 11-194 cannot exceed the lb/hr PM emission standard.

4. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of cumene, ethyl acrylate, ethylbenzene, methyl methacrylate, and styrene were de minimis.

**KVP-2 PRODUCTION UNIT:** Plastic Additives (Continued)

U-KVP2-PKG Emission Unit Description**:** KVP-2 Packaging System Emission Unit

**U-KVP2-PKG Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| U-KVP2-PKG Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVP2-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVP2-" Prefix)** | **Stack ID ("S-KVP2-" Prefix)** |
| 05-810 | KVP2 Pellet Staging Hopper* | 7.08 | 2.34 lb/hr<br>< 20% | 05-810 (Fabric filter) | 05-810 |
| 11-130 | KVP2 Filter Vent Receiver | 2.05, 7.08 | 6.34 lb/hr<br>< 20% | 11-130 (Fabric Filter) and 11-134 (Fabric Filter) | 11-130 |
| 11-190 | KVP2 Rework System* | 2.05, 7.08 | 2.34 lb/hr<br>< 20% | N/A | N/A |

* Only pellets are handled at this point, therefore there are no opacity compliance monitoring requirements

**U-KVP2-PKG Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **PM/$PM_{10}$**

i. For Emission Points 05-810 and 11-190, the owner or operator shall not allow the PM emissions to exceed 2.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2)

ii. For Emission Point 11-130, the owner or operator shall not allow the PM emissions to exceed 6.34 lb/hr. (Regulation 7.08, section 3.1.2)

iii. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 combined, the owner or operator shall not allow the $PM_{10}$ emissions to equal or exceed 15 tons per 12 consecutive month period. (Regulation 2.05) (See Comment 2)

b. **Opacity**

For Emission Points 05-810, 11-130, and 11-190, the owner or operator shall not allow the opacity to equal or exceed 20%. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **PM/$PM_{10}$**

i. To demonstrate proper operation of all applicable control devices, a preventive maintenance inspection of each control device (05-810, 11-130, and 11-134) shall be performed annually. This inspection shall consist of checking the filter media visible from the inspection door(s) and inspecting the tubesheet. Filter media not visible from inspection doors will be inspected if the tubesheet check indicates that filter section may be leaking. The filter media check will look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Filter media shall be changed as necessary. Records shall be maintained of preventive maintenance performed and the date it was performed. (See Comment 1)

ii. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 combined: The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total $PM_{10}$ emissions in order to show compliance with S1.a.iii.

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month for Emission Point 11-130 during normal operation. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator

shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in S2.b.i.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **$PM/P_{10}$**

i. For control devices (05-810, 11-130, and 11-134):

1) Emission unit ID number and emission point ID number;

2) Identification of all times the control device inspections are missed; or

3) A negative declaration if all the control device inspections are completed.

ii. For Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 combined: The monthly and 12 consecutive month $PM_{10}$ emissions.

b. **Opacity**

i. Emission unit ID number and emission point or stack ID number;

ii. The beginning and ending date of the reporting period;

iii. The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

iv. The number of surveys where visible emissions were observed;

v. Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

**U-KVP2-PKG Comments**

1. The potential uncontrolled lb/hr PM emissions for Emission Points 05-810, 11-130, and 11-190 are less than the limits in S1.a. Therefore, the preventative maintenance and opacity surveys to demonstrate that the dust collector is operating properly are the only monitoring, recordkeeping, and reporting requirements.

2. The potential uncontrolled $PM_{10}$ emissions for the project to install these Emission Points 11-115, 11-124, 11-130, 11-154, 11-184, 11-190, 11-194, 11-210, and 11-236 is 19.16 tpy which is above the significant level of 15 tpy of $PM_{10}$ for PSD/Nonattainment NSR, therefore the permit contains a limit to avoid PSD/Nonattainment NSR.

KV2 PRODUCTION UNIT: Plastic Additives

U-KV2-Dryer Emission Unit Description: KV2 Dryer Emission Unit

**U-KV2-Dryer Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |
| 40 CFR 64 | Compliance Assurance Monitoring for Major Stationary Sources | All |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KV2-Dryer Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV2-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KV2")** | **Stack ID ("S-KV2-" Prefix)** |
| 03-280 | KV2 Flow Aid Transfer System Bag Dump Station | 7.08 | 2.60lbs/hr<br>< 20% | 03-281 (Fabric filter) | 03-281 |
| 03-297 | KV2 Storage Tank 750 gal 1988 | 1.05 | NONE | N/A | 03-297 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |
| 03-330 | KV2 Drying System (Installed prior to Dec 17, 1987); and associated process collector (03-334 and 03-368) associated process safety dust collector (03-350) **AOS - Primary Operating Mode: Controlled** | 1.05 | NONE | (Thermal oxidizer) | 03-476 |
| | | 2.05 | See S1.a.ii. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 7.08 | 14.97 lbs/hr<br>< 20% | | |
| | | 7.25 | BACT; 6.1 lbs/hr and 10.6 tpy | | |
| | | 40 CFR 64 | | | |
| 03-330 | KV2 Drying System (Installed prior to Dec 17, 1987); and associated process collector (03-334 and 03-368) associated process safety dust collector (03-350) **AOS - Alternative Operating Mode: Cold stacking** | 1.05 | NONE | N/A | 03-476 |
| | | 2.05 | See S1.a.ii. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 7.08 | 14.97 lbs/hr<br>< 20% | | |
| | | 7.25 | 188 lbs/hr and 10.6 tpy | | |
| | | 40 CFR 64 | | | |
| 03-429 | KV2 Reclaim Transfer System to Reclaim Transfer Dust Collector | 7.08 | 6.34 lbs/hr<br>< 20% | 03-429 (Fabric filter) | 03-429 |
| 03-436 | KV2 Reclaim System Dump Station | 7.08 | 6.34 lbs/hr<br>< 20% | 03-437 (Fabric filter) | 03-437 |
| 03-662 | KV2 Bulk Packaging Machine | 7.08 | 2.34 lbs/hr<br>< 20% | 03-650 (Fabric filter) | 03-650 |

| U-KV2-Dryer Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV2-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KV2")** | **Stack ID ("S-KV2-" Prefix)** |
| 03-690 | KV2 Storage Silo | 2.05 | 21.54 lb/hr and 25 tpy | 03-692 (Fabric filter) | 03-692 |
| | | 7.08 | 21.54 lb/hr | | |
| | | | < 20% | | |

## U-KV2-Dryer Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 03-297, the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel. (Regulation 7.12, section 3)

ii. For Emission Point 03-330, the owner or operator shall limit the VOC emissions to less than or equal to 6.1 lb/hr and 10.6 tons per 12 consecutive month period, except for when the VOC emissions bypass the control device then the VOC emissions are limited to 188 lb/hr and 10.6 tons per 12 consecutive month period.
(Construction Permit 160-91-C, dated May 20, 1992)
(Regulation 2.05, section 1) (Regulation 7.25, section 3.1, BACT)
(See Comments 1, 2, and 3)

iii. For Emission Point 03-330, the vent gas stream shall not bypass the thermal oxidizer while feeding emulsion for more than forty-five (45) minutes in any one twenty-four (24) hour day. The twenty-four hour day is the KV-2 day starting at 6:00 a.m. and running to 5:59 a.m.
(Construction Permit 160-91-C, dated 5/20/92)
(Regulation 7.25, section 3.1)

iv. For control device 03-470,
(Construction Permit 160-91-C, dated 5/20/92) (See Comment 4)

1) The vent gas stream shall be burned at 1,300°F for 0.5 seconds, during normal (primary) operation. If the feed rate is maintained at the rate specified in S1.a.iv.5), then the 0.5 second minimum resonance time is achieved.

2) The thermal oxidizer shall be equipped with temperature indicators to measure combustion temperature.

3) Destruction of VOC's shall meet or exceed 98.50%, during normal (primary) operation.

4) The system shall be equipped with a failsafe device designed to interrupt vent gas flow and vent to a cold stack bypass should system experience an abnormal episode such as flame loss.

5) The gaseous VOC feed rate may not exceed the feed rate established during the last satisfactory performance test . Monitoring ports in the stack shall be furnished to ascertain compliance with S1.a.ii. (See Comment 5)

b. **PM/$PM_{10}$**

i. For Emission Point 03-662, the owner or operator shall not allow the PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2) (See Comment 6)

ii. For Emission Points 03-429 and 03-436, the owner or operator shall not allow the PM emissions to exceed 6.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2) (See Comment 6)

iii. For Emission Point 03-330, the owner or operator shall not allow PM emissions to exceed 14.97 lb/hr. (Regulation 7.08, section 3.1.2)
(See Comment 6)

iv. For Emission Point 03-280, the owner or operator shall not allow PM emissions to exceed 2.60 lb/hr. (Regulation 7.08, section 3.1.2)
(See Comment 6)

v. For Emission Point 03-690:

1) The owner or operator shall not allow PM emissions to exceed 21.54 lb/hr and 25 tons per 12 consecutive month period. In addition, $PM_{10}$ emissions shall not exceed 15 tons per 12 consecutive month period.
(Regulation 7.08, section 3.1.2) (Regulation 2.05, section 1)
(See Comment 7)

2) The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
(Regulation 2.16, section 4.1)

c. **Opacity**

For Emission Points 03-280, 03-330, 03-429, 03-436, 03-662, and 03-690, the owner or operator shall not allow the opacity to equal or exceed 20%. (Regulation 7.08, section 3.1.1)

d. **HAP**

See Appendix A for HAP standards.

e. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 8)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For control device 03-470, (See Comment 4)

1) The owner or operator shall measure the combustion temperature four times per hour.
(40 CFR 64.6(c)(1)(i-ii) and (b)(4))

2) The required temperature must be specified during the required stack testing on an hourly average. (40 CFR 64.6(c)(2))

3) If the combustion chamber temperature falls below the hourly average specified, the vent stream may bypass the control device. A bypass is only permitted for no more than 45 minutes per day. (40 CFR 64.6(a)(2))

4) The temperature indicator shall be checked per manufacturer's instructions annually. (40 CFR 64.6(b)(3))

5) The owner or operator shall maintain records of chemical composition, as calculated, and the amounts of gaseous VOCs that are vented to the thermal oxidizer each operating day.

6) The maintenance records and inspection reports of the thermal oxidizer shall be maintained.

ii. For Emission Point 03-297, the owner or operator of the storage vessels shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.i.

iii. For Emission Point 03-330,

1) The owner or operator shall monthly calculate the total monthly and 12 consecutive month VOC emissions for both operating scenarios. (See Comment 1)

2) The owner or operator shall maintain a log indicating the date and elapsed time of each change in operation made under the Alternative Operating Scenario. (Regulation 2.16, section 4.1.17.1)

b. **PM/$PM_{10}$**

i. To demonstrate proper operation of all applicable control devices, a preventive maintenance inspection of each control device (03-281, 03-429, 03-437, 03-650, and 03-692) shall be performed annually. This inspection shall consist of checking the filter media visible from the inspection door(s) and inspecting the tubesheet. Filter media not visible from inspection doors will be inspected if the tube sheet check indicates that filter section may be leaking. The filter media check will look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Filter media shall be changed as necessary.

ii. For control devices (03-281, 03-429, 03-437, 03-650, and 03-692) the owner or operator shall maintain records of preventive maintenance performed and the date it was performed.

iii. For Emission Point 03-690, the owner or operator shall monthly calculate and record the monthly and 12 consecutive month PM and $PM_{10}$ emissions in order to demonstrate compliance with S1.b.v.1).

iv. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.

v. For Emission Point 03-690, if there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date

2) Start time and stop time

3) Identification of the control device and process equipment

4) PM emissions during the bypass in lb/hr

5) Summary of the cause or reason for each bypass event

6) Corrective action taken to minimize the extent or duration of the bypass event

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

c. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of PM Emission Points 03-280, 03-330, 03-429, 03-436, 03-662, and 03-690. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted as indicated in S2.c.i.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

d. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

e. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Point 03-330:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Identification of all periods of exceedance of the VOC emission limit and the operating parameters. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

5) The monthly and 12 consecutive month VOC emissions;

6) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration;

ii. For control device 03-470: (See Comment 4)

1) Emission Unit number Emission Point number and Control Device number;

2) The beginning and ending date of the reporting period;

3) Date, time, and duration of any excursions. If no excursions occur during the reporting period, the owner or operator shall submit a negative declaration;

4) Description of the corrective action taken for each excursion. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

b. **PM/$PM_{10}$**

i. Emission Unit number and Emission Point number;

ii. The beginning and ending date of the reporting period;

iii. For Emission Point 03-690:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) The monthly and 12 consecutive month PM and $PM_{10}$ emissions for each month in the reporting period;

4) Identification of all periods of exceedance of the PM and $PM_{10}$ emission limits in S1.b.v.1). If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

5) Description of any corrective action taken for each exceedance. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

iv. For Emission Point 03-690, the owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual compliance reports:

1) Number of times the PM vent stream by-passes the control device and is vented to the atmosphere or the control device is not operating properly;

2) Duration of each by-pass to the atmosphere or when the control device is not operating properly;

3) Calculated pound per hour PM emissions for each by-pass or when the control device is not operating properly; or

4) A negative declaration if no by-passes occurred.

v. For control devices (03-281, 03-429, 03-437, 03-650, and 03-692):

1) Emission unit ID number and emission point ID number;

2) Identification of all times the control device inspections are missed; or

3) A negative declaration if all the control device inspections are completed.

c. **Opacity**

i. For PM Emission Points 03-280, 03-330, 03-429, 03-436, 03-662, and 03-690:

1) Emission unit ID number and emission point or stack ID number;

2) The beginning and ending date of the reporting period;

3) The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) The number of surveys where visible emissions were observed;

5) Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

d. **HAP**

See Appendix A for HAP reporting requirements.

e. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability

Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.e.ii.

S4. **Testing (Regulation 2.16, section 4.3.1)**

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

iii. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iv. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

vi. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **VOC**

i. The owner or operator shall perform a VOC performance test for emission point 03-330, on the inlet and outlet of the control device or emission point to demonstrate compliance with the limit in S1.a.ii. The test shall be

performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing. (See Comment 14)

c. **PM**

i. The owner or operator shall perform an EPA Reference Method 5 PM test for PM Emission Points 03-280, 03-330, 03-429, 03-436, 03-662, and 03-690, on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the performance test.

**U-KV2-Dryer Comments**

1. The source performed a VOC performance test for emission point 03-330 on August 5, 1992. The performance test resulted in VOC emissions of 0.09 lb/hr and a destruction efficiency of 99.94%. These results demonstrate compliance with the limits in S1.a.ii and S2.a.iii as long as the Thermal Oxidizer is operated in accordance with the parameters in S2.a.

2. The thermal oxidizer and the VOC bypass emission limit are considered BACT for Regulation 7.25.

3. The 10.6 tons of VOC per 12 consecutive month period limit has been taken in order to avoid PSD.

4. The source is major for VOC and a control device is needed to achieve compliance with District Regulation 7.25 for Emission Point E-KV2-03-330. In accordance with 40 CFR 64, Compliance Assurance Monitoring for Major Stationary Sources, the source was required to propose a CAM plan for VOC, based on current process and control device requirements and practices. The revised CAM plan was received on April 17, 2014.

5. The feed rate established during the performance test on August 5, 1992, the most recent test as of the issuance of this permit, was 143.03 lb/hr.

6. The potential uncontrolled PM emissions for emission points (03-280, 03-330, 03-429, 03-436, and 03-662) are less than the lb/hr limit in S1.b. Therefore, the preventative maintenance and opacity surveys to demonstrate that the fabric filter is operating properly are the only monitoring, recordkeeping, and reporting requirements.

7. The limit of 25 tons per year of PM and 15 tons per year of $PM_{10}$ is to avoid PSD/Nonattainment NSR for emission point 03-690.

8. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of acetophenone, ethyl acrylate, ethylbenzene, methyl metharylate, styrene, toluene, and xylene, were de minimis.

9. The potential controlled VOC emissions for the project to install emission point 03-330 was <20 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

10. The potential uncontrolled VOC emissions for the project to install these emission points (03-260 and 03-297) was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

11. The potential uncontrolled PM emissions for the project to install these emission point (03-297) was <1 tpy which was below the significant levels of 25 tpy of PM and 15 tpy of $PM_{10}$ for PSD/Nonattainment NSR.

12. The potential uncontrolled PM emissions for the project to install emission point 03-280 was <5 tpy which was below the significant levels of 25 tpy of PM and 15 tpy of $PM_{10}$ for PSD/Nonattainment NSR.

13. The potential uncontrolled PM emissions for the project to install emission point 03-429 and 03-436 was below the significant level of 25 tpy for PM and 15 tpy for $PM_{10}$ PSD/Nonattainment NSR.

14. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

**KV2 PRODUCTION UNIT:** Plastic Additives (Continued)

U-KV2-Feed Emission Unit Description: KV2 Feed Emission Unit

**U-KV2-Feed Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 6.24 | Standards of Performance for Existing Sources Using Organic Materials | 1 through 5, and 7 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KV2-Feed Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV2-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KV2-" Prefix)** | **Stack ID ("S-KV2-" Prefix)** |
| 03-290 | KV2 Feed Tank 25,000 gal 1986 | 1.05 | NONE | N/A | 03-290 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.i. | | |
| 03-291 | KV2 Feed Tank 25,000 gal 1986 | 1.05 | NONE | N/A | 03-291 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.i. | | |
| 03-296 | KV2 Filter | 1.05 | NONE | N/A | 03-296 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.i. | | |
| 03-300 | KV2 Blend Tank 36,000 gal 1979 | 1.05 | NONE | N/A | 03-300 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.25 | See S1.a.i. | | |
| 03-308 | KV2 Storage Tank 40,000 gal 1977 | 1.05 | NONE | N/A | 03-308 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |
| 03-309 | KV2 Storage Tank 40,000 gal 1977 | 1.05 | NONE | N/A | 03-309 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 6.24 | See S1.a.ii. | | |

## U-KV2-Feed Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Points 03-290, 03-291, 03-296, and 03-300, see Appendix E. (Regulation 7.25, section 3.1) (See Comment 1)

ii. For Emission Points 03-308 and 03-309, the owner or operator shall limit VOC emissions to less than 40 lbs/day and 8 lbs/hr for Class II solvents and less than 3000 lbs/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85%.
(Regulation 6.24, section 3.2 and 3.3) (See Comment 2)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 3)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Points 03-290, 03-291, 03-296, and 03-300: See Appendix E.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

For Emission Points For Emission Points 03-290, 03-291, 03-296, and 03-300: See Appendix E.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KV2-Feed Comments**

1. A BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 for any emissions outside of the 5 tpy limit.
2. The source submitted a one-time demonstration on August 1, 2003 that shows the potential uncontrolled VOC emissions cannot exceed the emission standards from Regulation 6.24 for Class II and Class III solvents for Emission Points 03-308 and 03-309. Therefore, there are no monitoring, recordkeeping, or reporting requirements for these emission points.
3. According to the company's plant wide PTE there are no TACs emitted from the equipment in this emission unit.

**KV2 PRODUCTION UNIT:** Plastic Additives (Continued)

U-KV2-50#bag Emission Unit Description**:** KV2 50# Bagging System

**U-KV2-50#bag Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| U-KV2-50#bag Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KV2-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Process Collection Device/Control Device ("C-KV2-" Prefix)** | **Stack ID ("S-KV2-" Prefix)** |
| 03-616 | KV2 Bag Packing Conveyor | 7.08 | 2.34 lbs/hr | 03-545 (Fabric filter) (Control Device) | 03-545 |
| | | 7.08 | < 20% | | |
| Bag-03-571 | KV2 50# Packaging Machine #2 | 2.05 | See S1.a.ii | 03-521 (Fabric filter) (Process Collector) | 03-521 |
| | | 7.08 | 7.57 lbs/hr | | |
| | | 7.08 | < 20% | | |
| Bag-03-572 | KV2 50# Packaging Machine #3 | 2.05 | See S1.a.ii | 03-521 (Fabric filter) (Process Collector) | 03-521 |
| | | 7.08 | 7.57 lbs/hr | | |
| | | 7.08 | < 20% | | |

**U-KV2-50#bag Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **PM/$PM_{10}$**

i. For Emission Point 03-616, the owner or operator shall not allow the PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2)

ii. For Emission Points Bag-03-571, and Bag-03-572, the owner or operator shall not allow the PM emissions to exceed 12.52 lb/hr for each emission point; and 25 tons per 12 consecutive month period of PM combined from all of these emission points, and 15 tons per 12 consecutive month period of $PM_{10}$ combined from all of these emission points.
(Construction Permit 35996-12-C, effective 10/23/2012) (Regulation 2.05, section 1)
(See Comment 1)

iii. The owner or operator shall utilize process collectors/control devises at all times the process equipment is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1)

b. **Opacity**

For Emission Points 03-616, Bag-03-571, and Bag-03-572, the owner or operator shall not allow the opacity to equal or exceed 20%.
(Regulation 7.08, section 3.1.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **PM/$PM_{10}$**

i. To demonstrate proper operation of all applicable process collectors/control devices, a preventive maintenance inspection of each control device (03-545 and 03-521) shall be performed annually. This inspection shall consist of checking the filter media visible from the inspection door(s) and inspecting the tubesheet. Filter media not visible from inspection doors will be inspected if the tube sheet check indicates that filter section may be leaking. The filter media check will look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Filter media shall be changed as necessary. Records shall be maintained of preventive maintenance performed and the date it was performed.

ii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the process collector/control device was not operating or a declaration that the process collector/control device operated at all times that day when the process was operating.

iii. For Emission Points Bag-03-571, and Bag-03-572, the owner or operator shall monthly calculate and record the monthly and 12 consecutive month PM and $PM_{10}$ emissions in order to demonstrate compliance with S1.a.ii.

iv. If there is any time that the process collector/control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date

2) Start time and stop time

3) Identification of the process collector/control device and process equipment

4) PM emissions during the bypass in lb/hr

5) Summary of the cause or reason for each bypass event

6) Corrective action taken to minimize the extent or duration of the bypass event

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of PM Emission Points 03-616, Bag-03-571, and Bag-03-572. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **PM/$PM_{10}$**

i. For Emission Points Bag-03-571, and Bag-03-572:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) The monthly and 12 consecutive month PM and $PM_{10}$ emissions for each month in the reporting period;

4) Identification of all periods of exceedance of the PM and $PM_{10}$ emission limit in S1.a.ii. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

5) Description of any corrective action taken for each exceedance. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

ii. The owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual compliance reports:

1) Number of times the PM vent stream by-passes the process collector/control device and is vented to the atmosphere or the process collector/control device is not operating properly;

2) Duration of each by-pass to the atmosphere or when the process collector/control device is not operating properly;

3) Calculated pound per hour PM emissions for each by-pass or when the process collector/control device is not operating properly; or

4) A negative declaration if no by-passes occurred.

iii. For process collectors/control devices (03-545 and 03-521):

1) Emission unit ID number and emission point ID number;

2) Identification of all times the process collector/control device inspections are missed; or

3) A negative declaration if all the process collector/control device inspections are completed.

b. **Opacity**

i. For Emission Points Bag-03-571, and Bag-03-572:

1) Emission unit ID number and emission point or stack ID number;

2) The beginning and ending date of the reporting period;

3) The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) The number of surveys where visible emissions were observed;

5) Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

S4. **Testing (Regulation 2.16, section 4.3.1)**

a. **General**

i. Plant-wide the owner or operator shall retest all process collectors/control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been

tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the process collector/control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the process collector/control device manufacture stating the process collector/control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **PM**

i. The owner or operator shall perform an EPA Reference Method 5 PM test, For Emission Points Bag-03-571, and Bag-03-572, on the inlet and outlet of the process collector/control device or emission point to determine the emission rate and process collector/control device efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the process collector/control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the

process operating parameters that will be monitored during the performance test, and the process collector/control device performance indicators (e.g. pressure drop) that will be monitored during the performance test.

**U-KV2-50#bag Comments**

1. The potential process collector/controlled PM emissions for Emission Points Bag-03-571, and Bag-03-572 are less than the limit in S1.a. Therefore, the preventative maintenance, by-pass language, opacity surveys, and testing requirements to demonstrate that the process dust collector is operating properly is included.

2. The emission limits of 25 tpy of PM and 15 tpy of $PM_{10}$ have been taken in order to avoid PSD/Nonattainment NSR.

**KV-PA PRODUCTION UNIT: Plastic Additives**

U-KVPA-Feed Emission Unit Description**:** KVPA Feed system (includes tanks)

**U-KVPA-Feed Applicable Regulations**

| **Federally Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |

| **District Only Enforceable Regulations** | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVPA-Feed Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVPA-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVPA-" Prefix)** | **Stack ID ("S-KVPA-" Prefix)** |
| 09-100 | KVPA Storage Tank 30,000 gal 1996 | 1.05 | NONE | N/A | 09-100 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |
| 05-692 | KVPA Storage Tank 25,000 gal 1985 | 1.05 | NONE | N/A | 05-692 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |
| 09-101 | KVPA Storage Tank 3,000 gal 1996 | 1.05 | NONE | N/A | 09-101 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | | |
| | | 7.12 | N/A (v.p. < 1.5 psia) | | |

## U-KVPA-Feed Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels. (Regulation 7.12, section 3)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Points 09-100, 09-101 an 05-692, the owner or operator of the storage vessels shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.a.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that

operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-KVPA-Feed Comments**

1. According to the company's plant wide PTE there are no TACs emitted from the equipment in this emission unit.
2. The potential uncontrolled VOC emissions for the project to install these emission points (09-100 and 09-101) was <4 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.
3. Regulation 40 CFR 60 Subpart Kb does not apply as the material stored has a vapor pressure less than 1.5 psia, which is less than the applicable threshold listed in this Federal Regulation.

**KV-PA PRODUCTION UNIT:** Plastic Additives (Continued)

U-KVPA-Dry Emission Unit Description**:** Dryer Emission Unit (including processing and dust collection systems)

**U-KVPA-Dry Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |
| 7.25 | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5 |
| 40 CFR 64 | Compliance Assurance Monitoring for Major Stationary Sources | All |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-KVPA-Dry Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVPA-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVPA"-Prefix)** | **Stack ID ("S-KVPA-" Prefix)** |
| 09-102 | KVPA Filter | 1.05 | NONE | N/A | 09-102 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 7.25 | See S1.a.iii. | | |
| 09-125 | KVPA Drying Chamber with associated dust collector (09-129) **AOS - Primary Operating Mode: Hot stacking**; see SC 3.a.iv. | 1.05 | NONE | 09-175 (Thermal oxidizer) | 09-176 |
| | | 2.05 | See S1.a.i. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 7.08 | 17.2 lbs/hr | | |
| | | 7.08 | < 20% | | |
| | | 7.25 | BACT; 5 lbs/hr and 8 tons/yr | | |
| | | 40 CFR 64 | | | |
| 09-125 | KVPA Drying Chamber with associated dust collector (09-129) **AOS - Alternative Operating Mode: Cold stacking**; see SC 3.a.iv. | 1.05 | NONE | N/A | 09-176 |
| | | 2.05 | See S1.a.i. | | |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.e. | | |
| | | 7.08 | 17.2 lbs/hr | | |
| | | 7.08 | < 20% | | |
| | | 7.25 | 130 lbs/hr and 8 tons/yr | | |
| | | 40 CFR 64 | | | |

## U-KVPA-Dry Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 09-125, the owner or operator shall limit the VOC emissions to less than or equal to 5.0 lb/hr and 8.0 tons per 12 consecutive month period, except for when the VOC emissions bypass the control device then the VOC emissions are limited to 130 lb/hr and 8.0 tons per 12 consecutive month period.
(Construction Permit 86-95-C, dated April 1, 1995)
(Regulation 2.05, section 1) (Regulation 7.25, section 3.1)
(See Comment 1)

ii. The KVPA vent gas stream shall not bypass the thermal oxidizer while feeding emulsion for more than forty-five (45) minutes in any one twenty-four (24) hour day. The twenty-four hour day is the KVPA day starting at 6:00 a.m. and running to 5:59 a.m.
(Construction Permit 86-95-C, dated April 1, 1995)
(Regulation 7.25, section 3.1)

iii. For Emission Point 09-125, the vent gas stream shall be burned at a minimum of 1,300°F for a minimum of 0.5 seconds. Emulsion feed shall not start before this temperature can be maintained, during normal (primary) operation. If the feed rate is maintained at the rate specified in S1.a.vi, then the 0.5 second minimum resonance time is achieved. (Construction Permit 86-95-C, dated April 1, 1995)

iv. For Emission Point 09-102, see Appendix E.
(Regulation 7.25, section 3.1) (See Comment 2)

v. For Control Device 09-175, the destruction of VOCs shall meet or exceed 98.50% during normal (primary) operation or the destruction efficiency demonstrated during the most recent performance test.
(Construction Permit 86-95-C, dated April 1, 1995)

vi. The VOC feed rate in the stream to the thermal oxidizer may not exceed 57.86 lb/hr (the feed rate contained in the December 5, 1994 permit application), or alternatively, a rate established during a performance test.

b. **PM**

For Emission Point 09-125, the owner or operator shall not allow the PM emissions to exceed 17.2 lb/hr.
(Construction Permit 86-95-C, dated April 1, 1995)
(Regulation 7.08, section 3.1.2) (See Comment 3)

c. **Opacity**

For Emission Point 09-125, the owner or operator shall not allow the opacity to equal or exceed 20%. (Regulation 7.08, section 3.1.1)

d. **HAP**

See Appendix A for HAP standards.

e. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 4)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. For Emission Point 09-125:

1) The owner or operator shall monthly calculate the total monthly and 12 consecutive month VOC emissions for both operating scenarios.

2) The owner or operator shall maintain a log indicating the date and elapsed time of each change in operation made under the Alternative Operating Scenario. (Regulation 2.16, section 4.1.17.1)

ii. For control device 09-175: (See Comment 6)

1) The owner or operator shall measure the combustion temperature four times per hour. (40 CFR 64.6(c)(1)(i-ii) and (b)(4))

2) The required temperature must be specified during the required stack testing on an hourly average. (40 CFR 64.6(c)(2))

3) If the combustion chamber temperature falls below the hourly average specified, the vent stream may bypass the control device. A bypass is only permitted for no more than 45 minutes per day. (40 CFR 64.6(a)(2))

4) The temperature indicator shall be checked per manufacturer's instructions annually. (40 CFR 64.6(b)(3))

5) The owner or operator shall maintain records of chemical composition, as calculated, and the amounts of gaseous VOCs that are vented to the thermal oxidizer each operating day.

6) The maintenance records and inspection reports of the thermal oxidizer shall be maintained.

iii. For Emission Point 09-102, see Appendix E.

b. **PM**

To demonstrate proper operation of the process collector 09-129 for emission point 09-125, a preventive maintenance inspection of each control device or process collector shall be performed annually. This inspection shall consist of checking the filter media visible from the inspection door(s) and inspecting the tubesheet. Filter media not visible from inspection doors will be inspected if the tube sheet check indicates that filter section may be leaking. The filter media check will look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Filter media shall be changed as necessary. The owner or operator shall maintain records of preventive maintenance performed and the date it was performed.

c. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of PM Emission Point 09-125. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

d. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

e. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. For Emission Point 09-125:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Identification of all periods of exceedance of the VOC emission limit and the operating parameters. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

5) The monthly and 12 consecutive month VOC emissions;

6) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration;

ii. For control device 09-175: (See Comment 6)

1) Emission Unit number;

2) The beginning and ending date of the reporting period;

3) Date, time, and duration of any excursions. If no excursions occur during the reporting period, the owner or operator shall submit a negative declaration;

4) Description of the corrective action taken for each excursion. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration

iii. For Emission Point 09-102: See Appendix E.

b. **PM**

i. For Emission Point 09-125:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of all periods of exceedance of the PM emission limit. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

ii. For process collector 09-129 for emission point 09-125:

1) Emission unit ID number and emission point ID number;

2) Identification of all times the process collector inspections are missed; or

3) A negative declaration if all the process collector inspections are completed.

c. **Opacity**

i. For Emission Point 09-125:

1) Emission unit ID number and emission point or stack ID number;

2) The beginning and ending date of the reporting period;

3) The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration

4) The number of surveys where visible emissions were observed

5) Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

d. **HAP**

See Appendix A for HAP reporting requirements.

e. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.e.ii.

**S4. Testing (Regulation 2.16, section 4.3.1)**

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented

by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **VOC**

i. The owner or operator shall perform a VOC performance test for control device 09-175, on the inlet and outlet of the control device or emission point to demonstrate compliance with the limits in S1.a.i. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The

audit samples shall be available for verification by the District during the onsite testing. (See Comment 7)

c. **PM**

vi. The owner or operator shall perform a EPA Reference Method 5 PM test, on the inlet and outlet of the process collector or emission point to determine the emission rate and process collector efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

vii. The owner or operator shall submit written compliance test plans (protocol) for the process collector efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the process collector performance indicators (e.g. pressure drop) that will be monitored during the performance test.

**U-KVPA-Dry Comments**

1. The 8 tons of VOC per 12 consecutive month period limit has been taken in order to avoid PSD.

2. A BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 provided the associated VOC PTE increases are in excess of the <5 combined limit for non-BACT sources.

3. The potential uncontrolled PM emissions for Emission Point 09-125 are less than the lb/hr limit in S1.b utilizing the process collector. Therefore, the preventative maintenance and opacity surveys to demonstrate that the fabric filter is operating properly are the only monitoring, recordkeeping, and reporting requirements.

4. According to the company's plant wide PTE there are no TACs emitted from the equipment in this emission unit.

5. The KVPA Drying Chamber (Emission Point 09-125) does not use gaseous fuel, therefore the $NO_x$ standard of Regulation 7.08 does not apply.

6. The source is major for VOC and a control device is needed to achieve compliance with District Regulation 7.25 for Emission Point E-KVPA-09-125. In accordance with 40 CFR 64, Compliance Assurance Monitoring for Major Stationary Sources, the source was required to propose a CAM plan for VOC, based on current process and control device requirements and practices. The revised CAM plan was received on April 17, 2014.

7. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

**KV-PA PRODUCTION UNIT:** Plastic Additives (Continued)

U-KVPA-Pack Emission Unit Description**:** KVPA Packaging system

**U-KVPA-Pack Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 7.08 | Standards of Performance for New Process Operations | 1 through 3 |

| U-KVPA-Pack Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-KVPA-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-KVPA-" Prefix)** | **Stack ID ("S-KVPA-" Prefix)** |
| 09-231 | KVPA Buffer Bin | 2.05 | See S1.a.iii. | 09-250 (Fabric filter) | 09-250 |
| | | 7.08 | 13.82 lb/hr | | |
| | | 7.08 | < 20% | | |
| 09-236 | KVPA Rework Hopper and 50# dump stations | 2.05 | See S1.a.iii. | 09-250 (Fabric filter) | 09-250 |
| | | 7.08 | 6.34 lb/hr | | |
| | | 7.08 | < 20% | | |
| 09-50# | KVPA 50# Pkg including 50# Baggers and various misc pick up locations on 50# Pkg system | 2.05 | See S1.a.iii. | 09-250 (Fabric filter) | 09-250 |
| | | 7.08 | 13.82 lb/hr | | |
| | | 7.08 | < 20% | | |
| 09-Bulk | KVPA Bulk System including Bulk Bagging Machine and various misc pick up locations in Bulk System | 2.05 | See S1.a.iii. | 09-250 (Fabric filter) | 09-250 |
| | | 7.08 | 13.82 lb/hr | | |
| | | 7.08 | < 20% | | |

**U-KVPA-Pack Specific Conditions**

**Standards (Regulation 2.16, section 4.1.1)**

a. **PM/$PM_{10}$**

i. For Emission Points 09-231, 09-50#, and 09-Bulk, the owner or operator shall not allow the PM emissions to exceed 13.82 lb/hr for each emission point. (Regulation 7.08, section 3.1.2)

ii. For Emission Point 09-236, the owner or operator shall not allow the PM emissions to exceed 6.34 lb/hr. (Regulation 7.08, section 3.1.2)

iii. For Emission Points 09-321, 90-50#, 09-Bulk, and 09-326 combined, the owner or operator shall not allow the PM/$PM_{10}$ emissions to exceed 11.5 tons per 12 consecutive month period.
(Construction Permit 383-95-C, dated November 1, 2005)
(Regulation 2.05, section 1) (See Comment 1)

iv. The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1)

b. **Opacity**

For Emission Points 09-231, 09-236, 09-50#, and 09-Bulk, the owner or operator shall not allow the opacity to equal or exceed 20%.
(Regulation 7.08, section 3.1.1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **PM/$PM_{10}$**

i. To demonstrate proper operation of all applicable control devices, a preventive maintenance inspection of each control device (09-250) shall be performed annually. This inspection shall consist of checking the filter media visible from the inspection door(s) and inspecting the tubesheet. Filter media not visible from inspection doors will be inspected if the tube sheet check indicates that filter section may be leaking. The filter media check will look for any tears or punctures, visible wear, excessive buildup or any other abnormal characteristics. Filter media shall be changed as necessary. Records shall be maintained of preventive maintenance performed and the date it was performed.

ii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.

iii. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month PM and $PM_{10}$ emissions in order to demonstrate compliance with S1.a.iii.

iv. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date

2) Start time and stop time

3) Identification of the control device and process equipment

4) PM emissions during the bypass in lb/hr

5) Summary of the cause or reason for each bypass event

6) Corrective action taken to minimize the extent or duration of the bypass event

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event

b. **Opacity**

i. The owner or operator shall conduct a one-minute visible emissions survey once per month, during normal operation, of PM Emission Points 09-231, 09-236, 09-50#, and 09-Bulk. No more than four Emission Points shall be observed simultaneously.

ii. At Emission Points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and take all practicable steps to eliminate the exceedance.

iii. The owner or operator shall maintain records of the results of all visible emission surveys and tests. Records of the results of any visible emissions survey shall include the date and the time of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **PM/$PM_{10}$**

i. For Emission Points 09-231, 09-236, 09-50#, and 09-Bulk:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) The monthly and 12 consecutive month PM and $PM_{10}$ emissions for each month in the reporting period;

4) Identification of all periods of exceedance of the PM and $PM_{10}$ emission limits in S1.a.iii. If no exceedances occur during the

reporting period, the owner or operator shall submit a negative declaration;

5) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration;

ii. The owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual compliance reports:

1) Number of times the PM vent stream by-passes the control device and is vented to the atmosphere;

2) Duration of each by-pass to the atmosphere;

3) Calculated pound per hour PM emissions for each by-pass; or

4) A negative declaration if no by-passes occurred.

iii. For control device (09-250):

1) Emission unit ID number and emission point ID number;

2) Identification of all times the control device inspections are missed; or

3) A negative declaration if all the control device inspections are completed.

b. **Opacity**

i. For Emission Points 09-231, 09-236, 09-50#, and 09-Bulk:

1) Emission unit ID number and emission point or stack ID number;

2) The beginning and ending date of the reporting period;

3) The date, time and results of each Method 9 that exceeded the opacity standard. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) The number of surveys where visible emissions were observed;

5) Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

**S4. Testing** (Regulation 2.16, section 4.3.1)

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years.

Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

iii. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iv. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

vi. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **PM/$PM_{10}$**

i. The owner or operator shall perform an EPA Reference Method 5 PM test, on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for PM compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the performance test.

**U-KVPA-Pack Comments**

1. The potential uncontrolled PM emissions from these emissions points are over 25 tons. This emission limit ensures PSD avoidance.

2. The potential controlled PM emissions for emission points (09-231, 09-236, 09-50#, and 09-Bulk) are less than the limits in S1.a. Therefore, the preventative maintenance, by-pass language and opacity surveys to demonstrate that the dust collector is operating properly are the only monitoring, recordkeeping, and reporting requirements.

**PLANT MISCELLANEOUS PRODUCTION UNIT: Miscellaneous**

U-PLANT-Misc Emission Unit Description**:** Plant miscellaneous equipment

**U-PLANT-Misc Applicable Regulations**

| Federally Enforceable Regulation | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 6.40 | Standards of Performance for Gasoline Transfer to Motor Vehicles (Stage II Vapor Recovery) | 1.3 |
| 7.15 | Standards of Performance for Gasoline Transfer to New Service Station Storage Tanks (Stage I Vapor Recovery) | 1 through 6 |
| 40 CFR 63 Subpart CCCCCC | National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities | 63.11111, 63.11112, 63.11113, 63.11115, and 63.11116 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.02 | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | 1 through 5 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-PLANT-Misc Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-PLANT-Misc-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-PLANT-Misc-" Prefix)** | **Stack ID ("S-PLANT-Misc-" Prefix)** |
| 71202A | Vehicle Gasoline Pump Tank 1,000 gal 1980 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | N/A | 71202A |
| | | 6.40 | See S1.a.i.6). | | |
| | | 7.15 | Stage I vapor recovery system | | |
| | | 5.02, 40 CFR Part 63 Subpart CCCCCC | | | |

**U-PLANT-Misc Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 71202A
(Regulation 7.15, section 3, Regulation 6.40, section 1.3, and 40 CFR Part 63 Subpart CCCCCC):

1) The owner or operator of an affected facility shall install, maintain, and operate the following devices on the storage tank:
(Regulation 7.15, section 3.1)

(a) Submerged fill pipe; (Regulation 7.15, section 3.1.1)

(b) If the gasoline storage tank is equipped with a separate gauge well, a gauge well drop tube shall be installed which extends to within six inches of the bottom of the tank; (Regulation 7.15, section 3.1.2)

(c) Vent line restrictions on the affected facility; and (Regulation 7.15, section 3.1.3)

(d) Vapor balance system and vapor tight connections on the liquid fill and vapor return hoses. The cross-sectional area of the vapor return hose and any other vapor return passages in the circuit connecting the vapor space in the service station tank to that of the truck tank must be at least 50% of the liquid fill hose cross-sectional area for each tank and free of flow restrictions to achieve acceptable recovery. The vapor balance equipment must be maintained according to the manufacturer's specifications. The type, size and design of the vapor balance system are subject to the approval of the District.
(Regulation 7.15, section 3.1.4)

2) The owner or operator shall not allow delivery of fuel to the storage tanks until the vapor balance system is properly connected to the transport vehicle and the affected facility.
(Regulation 7.15, section 3.3)

3) No person shall deliver gasoline to a service station as defined in Regulation 7.15 without connecting the vapor return hose between the tank of the delivery truck and the storage tank receiving the product. The vapor balance system must be operating in accordance with the manufacturer's specifications.
(Regulation 7.15, section 3.4)

4) The owner or operator shall equip above ground tanks with dry breaks with any liquid spillage upon the line disconnect not exceeding 10 ml. (Regulation 7.15, section 3.7)

5) The owner or operator shall operate and maintain equipment with no defects and: (Regulation 7.15, section 3.8)

(a) All fill tubes shall be equipped with vapor-tight covers including gaskets, (Regulation 7.15, section 3.8.1)

(b) All dry breaks shall have vapor-tight seals and shall be equipped with vapor-tight covers or dust covers, (Regulation 7.15, section 3.8.2)

(c) All vapor return passages shall be operated so there can be no obstruction of vapor passage from the storage tank back to the delivery vehicle, (Regulation 7.15, section 3.8.3)

(d) All storage tank vapor return pipes and fill pipes without dry breaks shall be equipped with vapor-tight covers including gaskets, and (Regulation 7.15, section 3.8.4)

(e) All hoses, fittings, and couplings shall be in a vapor-tight condition. (Regulation 7.15, section 3.8.5)

6) The owner or operator shall not exceed 10,000 gallons of gasoline based upon calculating the average volume of gasoline dispensed per month over the consecutive 12 month period, in order to be exempted from Regulation 6.40, except for the recordkeeping and reporting requirements. (Regulation 6.40, section 1.1 and 1.3)
(40 CFR 63.11111(b))

7) The owner or operator shall, at all times, operate and maintain associated control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing air emissions. (40 CFR 63.11115(a))
(See Comment 1)

8) The owner or operator must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following (40 CFR 63.11116):

(a) Minimize gasoline spills;

(b) Clean up spills as expeditiously as possible;

(c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Point 71202A, the owner or operator shall keep a record of the amount of throughput of gasoline per month to determine compliance with S1.a.i.6. (Regulation 6.40, section 3.1.1) (40 CFR 63.11116(b))

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

For Emission Point 71202A, the owner or operator shall submit a report by April 15th every year showing that they are still exempt from Regulation 6.40. (Regulation 6.40, section 2.2.1)

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-PLANT-Misc Comments**

1. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

2. The gasoline fueling process is de minimis for STAR as defined in Regulation 5.21, section 2.6.

**UTILITIES PRODUCTION UNIT: Utilities**

U-UTIL-Steam Emission Unit Description**:** Utilities Emission Points associated with steam production

**U-UTIL-Steam Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 2.04 | Construction or Modification or Major Sources in or Impacting upon Non-Attainment Areas (Emission Offset Requirements) | 1 and 2 |
| 2.05 | Prevention of Significant Deterioration of Air Quality | 1 and 2 |
| 6.13 | Standards of Performance for Existing Storage Vessels for Volatile Organic Compounds | 1 through 3 |
| 6.42 | Reasonably Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities | 1 through 5 |
| 7.01 | Standards of Performance for New Affected Facilities | 1 through 7 |
| 7.06 | Standards of Performance for New Indirect Heat Exchangers | 1 through 5; 7 and 8 |
| 7.12 | Standards of Performance for New Storage Vessels for Volatile Organic Compounds | 1 through 3; 7 and 8 |
| 7.22 | Standard of Performance for New Volatile Organic Materials Loading Facilities | 1 through 3 |
| 40 CFR 60 Subpart A | General Provisions | 60.1 through 60.19 |
| 40 CFR 60 Subpart Db | Standards of Performance for Industrial - Commercial - Institutional Steam Generating Units | 60.40b through 60.49b |
| 40 CFR 61 Subpart V | National Emission Standards for Equipment Leaks (Fugitive Emission Sources) | 61.240 through 61.247 |
| 40 CFR 63 Subpart A | General Provisions | 63.1 through 63.15 |
| 40 CFR 63 Subpart DD | National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations | 63.680 through 63.698 |
| 40 CFR 63 Subpart OO | National Emission Standards for Tanks - Level 1 | 63.900 through 63.907 |
| 40 CFR 63 Subpart PP | National Emission Standards for Containers | 63.920 through 63.928 |

| | | |
|---|---|---|
| 40 CFR 63 Subpart EEE | National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors | 63.1200; 63.1201; 63.1206 through 63.1211; 63.1214; 63.1215; 63.1217 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.02 | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | 1 through 5 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |
| 7.02 | Federal New Source Performance Standards Incorporated by Reference | 1, 2, 3.1, 3.10, 4, 5 |

| U-UTIL-Steam Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-UTIL-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-UTIL-" Prefix)** | **Stack ID ("S-UTIL-" Prefix)** |
| 60-100 | Boiler #100; 248.1 MM Btu/hr; natural gas, LWDF, and No. 2 fuel oil-fired | 2.04, 2.05 | See S1.a.i.2). | N/A | 60-185 |
| | | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | | |
| | | 7.01 | See S1.j. | | |
| | | 7.06 | See S1.a.i.1) and S1.d.i. | | |
| | | 7.02, 40 CFR 60 Subpart Db | See S1.a.i.1), S1.c.iii, S1.c.iv, and S1.d.ii. | | |
| | | 6.42 | See S1.c.i. | | |

| U-UTIL-Steam Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-UTIL-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-UTIL-" Prefix)** | **Stack ID ("S-UTIL-" Prefix)** |
| | | Const. Permit 449-90-C(R2) | See S1.a.i.2), S1.c.ii, S1.d.iii, S1.e.ii, and S1.h. | | |
| | | 5.02, 40 CFR 63 Subpart EEE | See S1.h. | | |
| 60-500 | Boiler #500; 248.1 MM Btu/hr; natural gas-fired, with No. 2 fuel oil backup | 6.42 | See S1.c.i. | N/A | 60-185 |
| | | 7.06 | See S1.a.ii, S1.b.ii, and S1.d.i. | | |
| | | 7.02, 40 CFR 60 Subpart Db | See S1.c.iii and S1.d.ii. | | |
| 64-130 | Tanker Load Rack | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | N/A | 64-130 |
| | | 7.22 | See S1.e.iv and S1.e.v. | | |
| | | 5.02, 40 CFR 63 Subpart DD | Hard-piped transfer systems | | |
| 64-137 | Tank Car Load Rack | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | N/A | 64-137 |
| | | 7.22 | See S1.e.iv and S1.e.v. | | |
| | | 5.02, 40 CFR 63 Subpart DD | Hard-piped transfer systems | | |
| 64-140 | Fuel Storage Tank 31,900 gal 1943 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | N/A | 64-140 |
| | | 6.13 | Submerged Fill | | |
| | | 5.02, 40 CFR 63 Subpart DD | HAP v.p. < 11.11 psia See S1.i.ii.4). | | |
| | | 5.02, 40 CFR 63 Subpart OO | Fixed roof with closure | | |
| | | 5.02, 40 CFR 61 Subpart V | LDAR | | |
| 64-141 | Fuel Storage Tank 31,900 gal 1943 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | N/A | 64-141 |
| | | 6.13 | Submerged Fill | | |

| U-UTIL-Steam Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-UTIL-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-UTIL-" Prefix)** | **Stack ID ("S-UTIL-" Prefix)** |
| | | 5.02, 40 CFR 63 Subpart DD | HAP v.p. < 11.11 psia See S1.i.ii.4). | | |
| | | 5.02, 40 CFR 63 Subpart OO | Fixed roof with closures | | |
| | | 5.02, 40 CFR 61 Subpart V | LDAR | | |
| 64-142 | Fuel Storage Tank 7,200 gal 1960 | 6.13 | See S1.e.vi. | N/A | 64-142 |
| 64-250 | Fuel Storage Tank 12,000 gal 1962 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | N/A | 64-250 |
| | | 6.13 | Submerged fill | | |
| | | 5.02, 40 CFR 63 Subpart DD | HAP v.p. < 11.11 psia See S1.i.ii.4). | | |
| | | 5.02, 40 CFR 63 Subpart OO | Fixed roof with closures | | |
| | | 5.02, 40 CFR 61 Subpart V | LDAR | | |
| CONTNR | Off-site Waste Containers | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.g. | N/A | N/A |
| | | 5.02, 40 CFR 63 Subpart DD | See 40 CFR 63 Subpart PP | | |
| | | 5.02, 40 CFR 63 Subpart PP | Level 1 Controls | | |
| | | | Level 2 Controls | | |

## U-UTIL-Steam Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **PM/$PM_{10}$**

i. For Emission Point 60-100, the owner or operator shall not allow the PM emissions to exceed the following:

1) The owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.10 pounds per million BTU actual total heat input.
(Regulation 7.06, section 4.1.4) (40 CFR 60.43b(b))
(See Comment 1)

2) The owner or operator shall not allow PM emissions to exceed 108.7 tons per 12 consecutive month period.
(Construction Permit 449-90, revision date 2/13/2002) (Construction Permit 449-90-C(R2)), revision date TBD) (Regulation 2.05, section 1) (See Comment 2)

ii. For Emission Point 60-500, the owner or operator shall not allow or cause the PM emissions to exceed 0.10 lbs/MMBtu.
(Regulation 7.06, section 4.1.2) (40 CFR 60.43b(b))

b. **Opacity**

i. For Emission Points 60-100 and 60-500, the owner or operator shall limit the opacity to 20% or less, with the following exceptions
(Regulation 7.06, section 4.2):

1) A maximum of forty percent (40%) opacity shall be allowed for not more than two (2) consecutive minutes in any sixty (60) consecutive minutes (Regulation 7.06, section 4.2.1);

2) A maximum of forty percent (40%) opacity shall be allowed for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the firebox or blowing soot
(Regulation 7.06, section 4.2.2); or

3) For emissions during the building of a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. (Regulation 7.06, section 4.2.3)

ii. For Emission Points 60-100 and 60-500, the owner or operator shall limit the opacity to 20% or less except for one six minute period per hour of not more than 27% opacity, except during startup, shutdown, and malfunction. (40 CFR 60.43b(f))

c. **$NO_x$**

i. For Emission Points 60-100 and 60-500, the owner or operator shall comply with the approved $NO_x$ RACT Plan. See Appendix B.
(Regulation 6.42, section 4)

ii. For Emission Point 60-100, the owner or operator shall not exceed 453.3 tons of $NO_x$ per 12 consecutive month period.
(Construction Permit 449-90, revision date 2/13/2002)
(Construction Permit 449-90-C(R2), revision date TBD)
(Regulation 2.04, section 1)

iii. For Emission Points 60-100 and 60-500, when fossil fuel alone (natural gas and/or distillate oil) is combusted, the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as $NO_2$) in excess of 0.2 lb/MMBtu.
(40 CFR 60.44b(a); 40 CFR 60.49b(t)(2)(i))

iv. For Emission Point 60-100, when fossil fuel and chemical by-product waste are simultaneously combusted, the owner or operator shall comply with the following: (40 CFR 60.49b(t)(2)(ii) (See Comments 3 and 4)

1) The nitrogen oxides emission limit is 473 ng/J (1.1 lb/million Btu),

2) The air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and

3) The flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

d. **$SO_2$**

i. For Emission Points 60-100 and 60-500, the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 0.8 pounds per million BTU actual total heat input for combustion of liquid and gaseous fuels.
(Regulation 7.06, sections 5.1.2 and 5.1.3.1)

ii. For Emission Points 60-100 and 60-500, the owner or operator shall not combust fuel oil that contains greater than 0.5 weight percent sulfur.
(40 CFR 60.42 b(d))

iii. For Emission Point 60-100, the owner or operator shall not allow $SO_2$ emissions to exceed 529.8 tons per 12 consecutive month period.
(Construction Permit 449-90, revised 2/13/2002)
(Construction Permit 449-90-C(R2), revision date TBD)
(Regulation 2.05, section 1) (See Comment 5)

e. **VOC**

i. For Emission Points 64-140 and 64-141, the owner or operator shall equip the storage vessels with a permanent submerged fill pipe.
(Regulation 6.13, section 3.3)

ii. For Emission Point 60-100, the owner or operator shall not allow the VOC emissions to exceed 13.0 tons per 12 consecutive month period.
(Construction Permit 449-90, revised 2/13/2002)
(Construction Permit 449-90-C(R2), revision date TBD)
(Regulation 2.04, section 1) (See Comment 7)

iii. For Emission Points 64-130 and 64-137, the owner or operator of any loading facility from which more than 200 gallons but less than 20,000 gallons of "volatile organic materials" are loaded in any one day shall not load any volatile organic materials into any tank truck, trailer, or railroad car from any loading facility unless such loading is accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. "Volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions.
(Regulation 7.22, section 3.1) (See Comment 9)

iv. For Emission Points 64-130 and 64-137, the owner or operator of any loading facility from which 20,000 gallons or more of "volatile organic materials" are loaded in any one day shall not load such materials unless such facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. "Volatile organic material" means any volatile organic compound which has a true vapor pressure of 78 mm Hg (1.5 psia) or greater under actual storage conditions. (Regulation 7.22, section 3.2)

v. For Emission Point U-UTIL-64-142, the owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in storage vessel. (Regulation 6.13, section 3) (See Comment 6)

f. **CO**

See S1.h and S1.j.

g. **TAC**

i. For Emission Point 60-100,

1) The owner or operator shall not allow emissions of arsenic and arsenic compounds to exceed 56 lb/yr.
(Construction Permit 449-90-C(R2)) (Regulation 5.21, section 4.3) (See Comment 10)

2) The owner or operator shall not allow emissions of cadmium and cadmium compounds to exceed 159.8 lb/yr.
(Construction Permit 449-90-C(R2)) (Regulation 5.21, section 4.3) (See Comment 10)

3) The owner or operator shall not allow emissions of hexavalent chromium exceed 94.1 lb/yr.
(Construction Permit 449-90-C(R2)) (Regulation 5.21, section 4.3) (See Comment 10)

4) The owner or operator shall not allow emissions of nickel and nickel compounds to exceed 2,465 lb/yr.
(Construction Permit 449-90-C(R2)) (Regulation 5.21, section 4.3)
(See Comment 10)

5) The owner or operator shall not allow emissions of lead compounds to exceed 15,902 lb/yr.
(Construction Permit 449-90-C(R2)) (Regulation 5.21, section 4.3)
(See Comment 10)

6) The owner or operator shall not allow emissions of trivalent chromium to exceed 248 lb/yr.
(Construction Permit 449-90-C(R2)) (Regulation 5.21, section 4.3)
(See Comment 10)

ii. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 10)

h. **40 CFR 63 Subpart EEE and Construction Permit 449-90-C(R2)**

For Emission Point 60-100:

i. The total liquid waste derived fuels (LWDF) feed rate shall not exceed the maximum amount demonstrated during the most recent testing as stipulated by 40 CFR 63.1209(j)(3) and has been submitted and approved by the District based on an hourly rolling average. (See Comment 11)

ii. The boiler shall meet a destruction and removal efficiency (DRE) of 99.99% when burning LWDF. (40 CFR 63.1217(c)) (See Comment 8)

iii. For Emission Point 60-100, the owner or operator shall not allow CO emissions to exceed 100 ppmv in the stack gas on an hourly rolling average basis corrected to 7% oxygen dry gas basis when combusting LWDF. (Construction Permit 449-90, revision date 2/13/2002)
(Construction Permit 449-90-C(R2), revision date TBD)
(40 CFR 63.1217(a)(5)(i))

iv. When hazardous waste is burned as fuel, mercury emissions shall not exceed $4.2 \times 10^{-5}$ lb mercury attributable to the hazardous waste per million BTU heat input from the hazardous waste on an hourly rolling average. (40 CFR 63.1217(a)(2)(ii))

v. LWDF material: The following waste streams and annual quantities have been approved as LWDF for burning in 60-100 (Boiler 100). The owner or operator shall combust approved LWDF from Rohm and Haas and Dow Chemical facilities only. Prior District approval shall be obtained to burn any compounds not currently on file as approved by the District. (Construction Permit 449-90, revision date 2/13/2002)
(Construction Permit 449-90-C(R2), revision date TBD)
(See Comment 12)

1) 48 Million Pounds per Year of MMA Still bottoms (KB Waste)

2) 7 Million Pounds per Year of Acrylic Resin Residue (KAC Waste)

3) 2 Million Pounds per Year of Waste Organics

4) 0.7 Million Pounds per Year of Miscellaneous Wastes.

vi. The owner or operator shall install, maintain, and properly operate an automatic waste feed shut down device which shall be triggered by the following (40 CFR 63.1206(c)(3)):

1) Failure to have a functioning oxygen (A or B) and carbon monoxide (A or B) CEM;

2) Loss of burner flame or flame detection in the boiler; or

3) Exceeding the minimum combustion chamber temperature limit established by the most recent testing as stipulated by 40 CFR 63.1209(j)(1) and has been submitted and approved by the District. (See Comment 13)

4) Exceeding the maximum LWDF feed rate limits as established by S1.h.i.

vii. Polychlorinated biphenyls, dioxins, and materials manufactured for chemical warfare shall not be burned in the process.
(Construction Permit 449-90, revision date 2/13/2002)
(Construction Permit 449-90-C(R2), revision date TBD)

viii. Principal Organics Hazardous Constituents listed as Class 1 compounds on University of Dayton thermal stability based incinerability ranking will not be in waste feeds.

**i. HAP**

i. The owner or operator shall comply with the standards as specified in 40 CFR 61 Subpart V, as referenced by 40 CFR 63.691(b)(1).
(See Appendix C of this permit for 40 CFR 61 Subpart V (NESHAP) Additional Conditions)

ii. For Emission Points 64-140, 64-141, and 64-250,

1) The tank shall be equipped with a fixed roof designed to meet the following specifications:
(40 CFR 63.902(b) as referenced by 40 CFR 63.685(b)(1))

(a) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank. The fixed roof may be a separate cover installed on the tank (e.g. a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g. a horizontal cylindrical tank equipped with a hatch).
(40 CFR 63.902(b)(1) as referenced by 40 CFR 63.685(b)(1))

(b) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(40 CFR 63.902(b)(2) as referenced by 40 CFR 63.685(b)(1))

(c) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:
(40 CFR 63.902(b)(3) as referenced by 40 CFR 63.685(b)(1))

(i) equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device;
(40 CFR 63.902(b)(3)(i) as referenced by 40 CFR 63.685(b)(1)) or

(ii) connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever regulated material is managed in the tank.
(40 CFR 63.902(b)(3)(ii) as referenced by 40 CFR 63.685(b)(1))

(d) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
(40 CFR 63.902(b)(4) as referenced by 40 CFR 63.685(b)(1))

2) Whenever a regulated-material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:
(40 CFR 63.902(c) as referenced by 40 CFR 63.685(b)(1))

(a) Opening of closure devices or removal of the fixed roof is allowed at the following times:
(40 CFR 63.902(c)(1) as referenced by 40 CFR 63.685(b)(1))

(i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a

port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
(40 CFR 63.902(c)(1)(i) as referenced by 40 CFR 63.685(b)(1))

(ii) To remove accumulated sludge or other residues from the bottom of tank.
(40 CFR 63.902(c)(1)(ii) as referenced by 40 CFR 63.685(b)(1))

(b) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.
(40 CFR 63.902(c)(2) as referenced by 40 CFR 63.685(b)(1))

(c) Opening of a safety device, as defined in 40 CFR 63.901, is allowed at any time conditions require it to do so to avoid an unsafe condition.
(40 CFR 63.902(c)(3) as referenced by 40 CFR 63.685(b)(1))

3) The owner or operator shall control air emissions by using a transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange). (40 CFR 63.689(c)(2))

4) The owner or operator shall limit the HAP vapor pressure to less than 76.6 kPa (11.11 psia), as calculated using 40 CFR 63.694(j), for each point. (40 CFR 63.685(b)(1))

5) The owner or operator shall equip each point with a permanent submerged fill pipe
(Regulation 6.13, section 3.3; and Regulation 7.12 section 3.3)

iii. For Emission Point CONTNR,

1) For a container having a design capacity greater than 0.1 $m^3$ (26.4 gal) and less than or equal to 0.46 $m^3$ (121.5 gal) using Container Level 1 controls is one of the following:
(40 CFR 63.922(b) as referenced by 40 CFR 63.688(b)(1)(i))

(a) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in S1.i.iii.4).
(40 CFR 63.922(b)(1) as referenced by 40 CFR 63.688(b)(1)(i))

(b) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum, a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a bulk cargo container equipped with a screw-type cap).
(40 CFR 63.922(b)(2) as referenced by 40 CFR 63.688(b)(1)(i))

(c) An open-top container in which an organic vapor-suppressing barrier is placed on or over the regulated-material in the container such that no regulated-material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
(40 CFR 63.922(b)(3) as referenced by 40 CFR 63.688(b)(1)(i))

2) For a container having a design capacity greater than 0.1 $m^3$ (26.4 gal) and less than or equal to 0.46 $m^3$ (121.5 gal) using Container Level 1 controls meeting the requirements of either S1.i.iii.1)b) or S1.i.iii.1)c) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the regulated-material to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability, the effects of contact with the material or its vapor managed in the container; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for container on which the cover is installed.
(40 CFR 63.922(c) as referenced by 40 CFR 63.688(b)(1)(i))

3) Whenever a regulated-material is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:
(40 CFR 63.922(d) as referenced by 40 CFR 63.688(b)(1)(i))

(a) Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows:
(40 CFR 63.922(d)(1) as referenced by 40 CFR 63.688(b)(1)(i))

(i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
(40 CFR 63.922(d)(1)(i) as referenced by 40 CFR 63.688(b)(1)(i))

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaves the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
(40 CFR 63.922(d)(1)(ii) as referenced by 40 CFR 63.688(b)(1)(i))

(b) Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows:
(40 CFR 63.922(d)(2) as referenced by 40 CFR 63.688(b)(1)(i))

(i) For the purpose of meeting the requirements of this section, an empty container as defined in 40 CFR 63.921 may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container).
(40 CFR 63.922(d)(2)(i) as referenced by 40 CFR 63.688(b)(1)(i))

(ii) In the case when discrete quantities or batches of material are removed from the container but the

container does not meet the conditions to be an empty container as defined in 40 CFR 63.921, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes, or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
(40 CFR 63.922(d)(2)(ii) as referenced by 40 CFR 63.688(b)(1)(i))

(c) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
(40 CFR 63.922(d)(3) as referenced by 40 CFR 63.688(b)(1)(i))

(d) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
(40 CFR 63.922(d)(4) as referenced by 40 CFR 63.688(b)(1)(i))

(e) Opening of a safety device, as defined in 40 CFR 63.921, is allowed at any time conditions require it to do so to avoid an unsafe condition.
(40 CFR 63.922(d)(5) as referenced by 40 CFR 63.688(b)(1)(i))

4) For the purpose of compliance with S1.i.iii.1)a) and S1.i.iii.5)a), containers shall be used that meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation as follows:
(40 CFR 63.922(f) as referenced by 40 CFR 63.688(b)(1)(i) and 40 CFR 63.923(f) as referenced by 40 CFR 63.688(b)(3)(i))

(a) The container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packagings or 49 CFR part 179—Specifications for Tank Cars.
(40 CFR 63.922(f)(1) as referenced by 40 CFR 63.688(b)(1)(i) and 40 CFR 63.923(f)(1) as referenced by 40 CFR 63.688(b)(3)(i))

(b) Regulated-material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107 subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packaging; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings.
(40 CFR 63.922(f)(2) as referenced by 40 CFR 63.688(b)(1)(i) and 40 CFR 63.923(f)(2) as referenced by 40 CFR 63.688(b)(3)(i))

(c) For the purpose of complying with this subpart, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in S1.e.vii.4)d).
(40 CFR 63.922(f)(3) as referenced by 40 CFR 63.688(b)(1)(i) and 40 CFR 63.923(f)(3) as referenced by 40 CFR 63.688(b)(3)(i))

(d) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with 40 CFR 63 Subpart PP, an owner or operator may comply with the exceptions for those packagings specified in 49 CFR 173.12(b).
(40 CFR 63.922(f)(4) as referenced by 40 CFR 63.688(b)(1)(i) and 40 CFR 63.923(f)(4) as referenced by 40 CFR 63.688(b)(3)(i))

5) For a container having a design capacity greater than 0.46 $m^3$ (121.5 gal) using Container Level 2 controls is one of the following:
(40 CFR 63.923(b) as referenced by 40 CFR 63.688(b)(3)(i))

(a) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in S1.i.iii.4).
(40 CFR 63.923(b)(1) as referenced by 40 CFR 63.688(b)(3)(i))

(b) A container that has been demonstrated to operate with no detectable organic emissions as defined in 40 CFR 63.921.
(40 CFR 63.923(b)(2) as referenced by 40 CFR 63.688(b)(3)(i))

(c) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using Method 27 in Appendix A of 40 CFR part 60 in accordance with the procedure specified in 40 CFR 63.925(b).
(40 CFR 63.923(b)(3) as referenced by 40 CFR 63.688(b)(3)(i))

6) Transfer of regulated-material in to or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the regulated-material to the atmosphere, to the extent practical, considering the physical properties of the regulated-material and good engineering and safety practices for handling flammable, ignitable, explosive, or other hazardous materials. Examples of container loading procedures that meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the regulated-material is filled, with subsequent purging of the transfer line before removing it from the container opening.
(40 CFR 63.923(c) as referenced by 40 CFR 63.688(b)(3)(i))

7) Whenever a regulated-material is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:
(40 CFR 63.923(d) as referenced by 40 CFR 63.688(b)(3)(i))

(a) Opening of a closure device or cover is allowed for the purpose of adding material to the container as follows:
(40 CFR 63.923(d)(1) as referenced by 40 CFR 63.688(b)(3)(i))

(i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(40 CFR 63.923(d)(1)(i) as referenced by 40 CFR 63.688(b)(3)(i))

(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaves the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
(40 CFR 63.923(d)(1)(ii) as referenced by 40 CFR 63.688(b)(3)(i))

(b) Opening of a closure device or cover is allowed for the purpose of removing material from the container as follows:
(40 CFR 63.923(d)(2) as referenced by 40 CFR 63.688(b)(3)(i))

(i) For the purpose of meeting the requirements of this section, an empty container as defined in 40 CFR 63.921 may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container).
(40 CFR 63.923(d)(2)(i) as referenced by 40 CFR 63.688(b)(3)(i))

(ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 40 CFR 63.921, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.
(40 CFR 63.923(d)(2)(ii) as referenced by 40 CFR 63.688(b)(3)(i))

(c) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a

worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
(40 CFR 63.923(d)(3) as referenced by 40 CFR 63.688(b)(3)(i))

(d) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
(40 CFR 63.923(d)(4) as referenced by 40 CFR 63.688(b)(3)(i))

(e) Opening of a safety device, as defined in 40 CFR 63.921 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.
(40 CFR 63.923(d)(5) as referenced by 40 CFR 63.688(b)(3)(i))

iv. For Emission Point 64-130 and 64-137, the owner or operator shall control air emissions by using a transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g. a welded joint between two sections of metal pipe or a bolted and gasketed flange). (40 CFR 63.689(c)(2))

v. See Appendix A for HAP standards.

j. **Unit Operation**

For Emission Point 60-100, the owner or operator must operate CEMS and maintain records of the following for opacity, nitrogen oxides, carbon monoxide,

and either oxygen or carbon dioxide: CEMS, monitoring device, and performance testing measurements, CEMS performance evaluations, CEMS calibration checks, and adjustments and maintenance performed on these systems or devices. (Regulation 7.01, section 5.4)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1)**

a. **$PM/PM_{10}$**

For Emission Points 60-100 and 60-500, the owner or operator shall keep records of all stack test data conducted in the previous five (5) years or the most recent stack test data if conducted greater than five (5) years ago. See S4 for testing requirements.

b. **Opacity**

i. For Emission Point 60-100, the owner or operator shall keep records of all COMS output according to 40 CFR 60.48b(a). (40 CFR 60.49b(f))

ii. For Emission Point 60-500,

1) The owner or operator shall monitor opacity by one of the following methods when the boiler is in service:
(Construction Permit 147-02-C, dated May 22, 2002)

(a) Use a continuous opacity monitor if operational, for one minute at least once each calendar week to record the opacity (see Comment 14); or

(b) Conduct a one-minute visible emissions survey once per calendar week, during normal operation and daylight hours. Where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 within 24 hours of the initial observation. If the opacity standard is exceeded, the owner or operator shall report the exceedance to the District, pursuant to Regulation 1.07, and shall take all practicable steps to eliminate the exceedance.

2) The owner or operator shall keep a record of all visible emissions surveys and tests performed and shall include the date and time of the survey; the name of the person conducting the survey; whether visible emissions were observed; and any corrective action taken. If Emission Point 60-500 was not operated during the week or if the opacity analyzer system for Emission Point 60-100 was used for documenting opacity for Emission Point 60-500, then no visible emission survey needs to be performed and a negative declaration shall be entered on the visible survey record.

c. **$NO_x$**

i. For Emission Points 60-100 and 60-500, the owner or operator shall comply with the monitoring record keeping requirements of the $NO_x$ RACT Plan. See Appendix B.

ii. For Emission Point 60-100, the owner or operator shall maintain records of the following information for each steam generating unit operating day: (40 CFR 60.49b(g))

1) Calendar date. (40 CFR 60.49b(g)(1))

2) The average hourly nitrogen oxides emission rates (expressed as $NO_2$) (ng/J or lb/million Btu heat input) measured or predicted. (40 CFR 60.49b(g)(2))

3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days. (40 CFR 60.49b(g)(3))

4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken. (40 CFR 60.49b(g)(4))

5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken. (40 CFR 60.49b(g)(5))

6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data. (40 CFR 60.49b(g)(6))

7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted. (40 CFR 60.49b(g)(7))

8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system. (40 CFR 60.49b(g)(8))

9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3. (40 CFR 60.49b(g)(9))

10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1. (40 CFR 60.49b(g)(10))

iii. For Emission Point 60-100:

1) The owner or operator shall keep records of the inspection of the air ratio control damper tee handle setting and of the flue gas recirculation line valve opening position indicator setting shall be recorded once per eight hour shift. (40 CFR 60.49b(t)(3)(i))

2) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period

of 2 years following the date of such record.
(40 CFR 60.49b(t)(4)(ii))

iv. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month $NO_x$ emissions in order to demonstrate compliance with S1.c.ii.

d. **$SO_2$**

For Emission Points 60-100 and 60-500,

1) The owner or operator shall confirm the fuel oil combusted has a sulfur content of less than 0.5% by weight by either obtaining a sample and having it tested upon receipt of shipment or by certification by the supplier.

2) The owner or operator shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil (except for fuel nitrogen content) as defined in 40 CFR 60.41b. (40 CFR 60.49b(r)).

e. **VOC**

i. For Emission Point 60-100, the owner or operator shall monthly calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with S1.e.ii.

ii. For Emission Points 64-130 and 64-137, the owner or operator shall keep records of the total volatile organic material (VOM) with a vapor pressure greater than or equal to 1.5 psia under actual storage conditions loaded for each Emission Point (loading facility) on days that VOM loading occurs.

iii. For Emission Point 64-142, the owner or operator shall maintain a list of the materials that are stored in the vessel(s) and the corresponding vapor pressure and if the contents of the storage vessels are changed to a material not on the list then a record shall be made of the new contents in order to demonstrate compliance with S1.e.vi.

f. **CO**

See S2.h and S2.j.

g. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

iii. The owner or operator shall monthly calculate and record the monthly and year to date emissions for each calendar year of arsenic and arsenic compounds to demonstrate compliance with S1.g.i.1).

iv. The owner or operator shall monthly calculate and record the monthly and year to date emissions for each calendar year of cadmium and cadmium compounds to demonstrate compliance with S1.g.i.2).

v. The owner or operator shall monthly calculate and record the monthly and year to date emissions for each calendar year of hexavalent chromium to demonstrate compliance with S1.g.i.3).

vi. The owner or operator shall monthly calculate and record the monthly and year to date emissions for each calendar year of nickel and nickel compounds to demonstrate compliance with S1.g.i.4).

vii. The owner or operator shall monthly calculate and record the monthly and year to date emissions for each calendar year of lead and lead compounds to demonstrate compliance with S1.g.i.5).

viii. The owner or operator shall monthly calculate and record the monthly and year to date emissions for each calendar year of trivalent chromium to demonstrate compliance with S1.g.i.6).

h. **40 CFR 63 Subpart EEE and Construction Permit 449-90-C(R2)**

i. For Emission Point 60-100, the owner or operator shall document compliance with S1.h.ii once per five year permit term provided the source is not modified after the Destruction and Removal Efficiency (DRE) test in a manner that could affect the ability of the source to achieve the DRE standard.
(40 CFR 63.1206(b)(7)(i)(A) and Regulation 2.16, section 4.1.9.1.2)

1) The source may use any DRE test data that documents that the source achieves the required level of DRE provided:
(40 CFR 63.1206(b)(7)(i)(B))

(a) You have not modified the design or operation of your source in a manner that could affect the ability of your source to achieve the DRE standard since the DRE test was performed; and, (40 CFR 63.1206(b)(7)(i)(B)(1))

(b) The DRE test data meet quality assurance objectives determined on a site-specific basis.
(40 CFR 63.1206(b)(7)(i)(B)(2))

ii. For Emission Point 60-100, CEMS, and Appendix to 40 CFR 63 Subpart EEE as follows:

1) The owner or operator shall install, calibrate, maintain, and operate CEMS and recording systems for carbon monoxide. The owner or operator shall use an oxygen CEMS to continuously correct the carbon monoxide level to 7 percent oxygen.
(40 CFR 63.1209(a)(1)(i)

2) The span value of all continuous monitoring systems shall be subject to approval by the District.

3) When simultaneously burning fossil fuel and LWDF, the owner or operator shall comply with the following:

(a) The delivery pipe to the liquid waste burner shall be equipped with a flow indicator capable of measuring up to the maximum demand of the burner and shall be equipped with a continuous recorder; and

(b) Emission Point 60-100 shall be equipped with an indicating pyrometer or thermometer, in or near the superheater section, to measure the combustion chamber temperature, and shall be equipped with a continuous recorder and have a total system accuracy of ±25°F or better.

4) During any performance tests required by this permit and at such other times as may be required by the District, the owner or operator may be required to conduct continuous monitoring system performance evaluations. A copy of a written report of the results of such tests shall be furnished to the District with the quarterly excess emissions report or within sixty (60) days of completing the tests, whichever date occurs later. At a minimum, continuous monitoring system performance evaluations (relative accuracy) shall be conducted at least annually. They shall be conducted pursuant to the following specifications and procedures contained in 40 CFR 60 Appendix B:

(a) Continuous monitoring systems for measuring opacity of emissions shall comply with Performance Specification 1.

(b) Continuous monitoring systems for measuring nitrogen oxides emissions shall comply with Performance Specification 2.

(c) Continuous monitoring systems for measuring the oxygen content or carbon dioxide content of effluent gases shall comply with Performance Specification 3.

(d) Continuous monitoring systems for measuring CO emissions shall conform to the Appendix to 40 CFR Part 63 Subpart EEE as a guide.

5) For the temperature sensor that is used to activate the automatic waste feed cutoff, there will be a duplex temperature sensor in the same temperature probe. If the difference between the temperature readings of the duplex temperature sensors exceeds 25°F, the owner or operator shall repair or replace the temperature sensor within seven (7) boiler operating days. If the faulty temperature sensor is not replaced or repaired within 7 boiler operating days, the owner or operator shall provide written notification to the District. The notification report shall include the identification of the problem and actions being taken to correct the problem. LWDF can continue to be burned in this facility as long as one of the temperature sensors in the temperature probe is functioning properly. At no time shall the owner or operator cause or allow the combustion of LWDF if both temperature sensors in the

temperature probe being used to activate the automatic waste feed cutoff are not functioning properly.

6) The owner or operator shall perform an annual analysis on each type of the LWDF processed for the presence of total halogens and mercury. The District may require the owner or operator to perform an analysis for the presence of polychlorinated biphenyls and dioxins for each new waste stream. The assumption shall be made, for compliance determination with 40 CFR 63 Subpart EEE, that 100% of mercury is emitted to the atmosphere through the stack, unless stack testing data indicate otherwise. During the remainder of the year each type of LWDF will be analyzed as follows:

(a) MMA still bottoms, acrylic resin residue, and waste organics LWDF materials will be analyzed on a monthly basis for only those constituents in S2.h.ii.6) which are detected when the annual retesting for all listed constituents is performed or are by process knowledge expected to be a component of the material. The analysis shall be performed on a seven day composite sample of the LWDF material fed to Emission Point 60-100. The testing frequency of those constituents detected in the annual retesting can be reduced if the statistical criteria in S2.h.ii.6)c) are satisfied.

(b) Each batch of the LWDF materials which are listed in S1.h.vi and which are not covered in S2.h.ii.6)a) will be analyzed on a monthly basis, when processed, for only those constituents listed in S2.h.ii.6) which are detected when the annual retesting for all listed constituents is performed or are by process knowledge expected to be a component of the material. The testing frequency of those constituents detected in the annual retesting can be reduced if the statistical criteria in S2.h.ii.6)c) are satisfied. Until then, each type of LWDF material covered by this condition will be sampled and analyzed for the detected constituents.

(c) The reduction of testing frequency for detected constituents in the retesting required in S2.h.ii.6) will be granted if the following conditions are met:

(i) At the commencement of this program at least thirty (30) samples have been taken and analyzed for the LWDF material.

(ii) A 95% confidence level, that the probability of a batch exceeding the allowable limit for the constituent is less than 0.05, is obtained. The methods to determine this confidence level will follow standard statistical practices, as presented in, for example, Statistical Intervals: A Guide for

Practitioners, by G. J. Hahn and W. Q. Meeker or equivalent methods.

When the above two conditions have been met for a particular constituent of a LWDF material, a determination will be made on the advisability and extent of a reduced sampling and testing program for that constituent in that LWDF material. This determination shall be submitted to and approved by the District before its implementation

7) The owner or operator shall for the fail safe systems:

(a) Monitor the burner flame to demonstrate compliance with S1.h.vi.2).

(b) Monitor the hourly rolling average temperature in or near the superheater section of the boiler to demonstrate compliance with S1.h.vi.3).

(c) Monitor the hourly rolling average main gun and side gun feed rates, to demonstrate compliance with S1.h.vi.4).

iii. The owner or operator shall keep the following records for Emission Point 60-100:

1) Daily operating hours of liquid waste combustion;

2) Liquid waste received daily (from on-site or off-site locations) and specifying the following:

(a) The amount received;

(b) A general description of the waste; and

(c) The source from which the waste was received;

3) The quantity of waste burned;

4) Any required stack test and CEM data;

5) Parameters which are monitored and recorded for which a limit or standard has been set in this permit or by applicable regulation;

6) Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative;

7) Inspection reports, maintenance records, automatic waste feed shut down test records, and LWDF feed rate exceedance records; and

8) Records of when the temperature difference of the duplex temperature sensors, used to activate the automatic waste feed cutoff for Emission Point 60-100, exceeds 25°F and of when the difference returns to less than 25°F during times when LWDF is used as fuel. The boiler temperature shall be recorded when Emission Point 60-100 is burning LWDF materials.

i. **HAP**

i. The owner or operator shall comply with the standards as specified in 40 CFR 61 Subpart V, as referenced by 40 CFR 63.691(b)(1).
(See Appendix C of this permit for 40 CFR 61 Subpart V (NESHAP) Additional Conditions)

ii. For Emission Points 64-140, 64-141, and 64-250:

1) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of 40 CFR 63.902 shall meet the following requirements:
(40 CFR 63.906(a)(1) as referenced by 40 CFR 63.685(b)(1))

(a) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
(40 CFR 63.906(a)(1) as referenced by 40 CFR 63.685(b)(1))

(b) The owner or operator must perform the inspections at least once every calendar year except as provided for in 40 CFR 63.906(d).
(40 CFR 63.906(a)(2) as referenced by 40 CFR 63.685(b)(1))

(c) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of S2.i.ii.2).
(40 CFR 63.906(a)(3) as referenced by 40 CFR 63.685(b)(1))

2) The owner or operator shall repair all detected defects as follows:
(40 CFR 63.906(b) as referenced by 40 CFR 63.685(b)(1))

(a) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in S2.i.ii.2)b).
(40 CFR 63.906(b)(1) as referenced by 40 CFR 63.685(b)(1))

(b) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the regulated material normally managed in the tank. In this case, the owner or operator shall repair the defect the next time alternative tank capacity becomes

available and the tank can be emptied or temporarily removed from service, as necessary to complete the repair. (40 CFR 63.906(b)(2) as referenced by 40 CFR 63.685(b)(1))

3) The owner or operator shall prepare and maintain a record for each tank that includes the following information:
(40 CFR 63.907(a) as referenced by 40 CFR 685(b)(1))

(a) A tank identification number (or other unique identification description as selected by the owner or operator).
(40 CFR 63.907(a)(1) as referenced by 40 CFR 685(b)(1))

(b) A description of the tank dimensions and the tank design capacity.
(40 CFR 63.907(a)(2) as referenced by 40 CFR 685(b)(1))

(c) The date that each inspection required by S2.i.ii.1) is performed.
(40 CFR 63.907(a)(3) as referenced by 40 CFR 685(b)(1))

4) The owner or operator shall record the following information for each defect detected during inspections required by S2.i.ii.1): the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of 40 CFR 63.906(b)(2), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.
(40 CFR 63.907(b) as referenced by 40 CFR63.685(b)(1))

5) The owner or operator shall determine the maximum HAP vapor pressure for an off-site material to be stored in the tanks.
(40 CFR 63.685 (c)(1))

iii. For Emission Point CONTNR,

1) Owners and operators of containers using either Container Level 1 or Container Level 2 controls in accordance with the provisions of 40 CFR 63.922 and 40 CFR 63.923, respectively, shall inspect the container and its cover and closure devices as follows:
(40 CFR 63.926(a) as referenced by 40 CFR 63.688((b)(1)(i) and (b)(3)(i)))

(a) In the case when a regulated-material already is in the container at the time the owner or operator first accepts possession of the container at the facility site and the container is not emptied (i.e. does not meet the conditions for an empty container as defined in 40 CFR 63.921) within 24 hours after the container has been accepted at the facility site, the container and its cover and closure devices shall be visually inspected by the owner or operator to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. This inspection of the

container must be conducted on or before the date that the container is accepted at the facility (i.e., the date that the container becomes subject to the standards under this subpart). For the purpose of this requirement, the date of acceptance is the date of signature of the facility owner or operator on the manifest or shipping papers accompanying the container. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of S2.i.ii.2).
(40 CFR 63.926(a)(1) as referenced by 40 CFR 63.688((b)(1)(i) and (b)(3)(i)))

(b) In the case when a container filled or partially filled with regulated-material remains unopened at the facility site for a period of 1 year or more, the container and its cover and closure devices shall be visually inspected by the owner or operator initially and thereafter, at least once every calendar year, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of S2.i.ii.2).
(40 CFR 63.926(a)(2) as referenced by 40 CFR 63.688((b)(1)(i) and (b)(3)(i)))

(c) When a defect is detected for the container, cover, or closure devices, the owner or operator must either empty the regulated-material from the defective container in accordance with S2.i.iii.1)c)(i) or repair the defective container in accordance with S2.i.iii.1)c)(ii).
(40 CFR 63.926(a)(3) as referenced by 40 CFR 63.688((b)(1)(i) and (b)(3)(i)))

(i) If the owner or operator elects to empty the regulated-material from the defective container, the owner or operator must remove the regulated-material from the defective container to meet the conditions for an empty container (as defined in 40 CFR 63.921) and transfer the removed regulated-material to either a container that meets the applicable standards under 40 CFR 63 Subpart PP or to a tank, process, or treatment unit that meets the applicable standards under 40 CFR 63 Subpart DD. Transfer of the regulated-material must be completed no later than 5 calendar days after detection of the defect. The emptied defective container must be either repaired, destroyed, or used for purposes other than management of regulated-material.

(40 CFR 63.926(a)(3)(i) as referenced by 40 CFR 63.688((b)(1)(i) and (b)(3)(i)))

(ii) If the owner or operator elects not to empty the regulated-material from the defective container, the owner or operator must repair the defective container. First efforts at repair of the defect must be made no later than 24 hours after detection and repair must be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the regulated-material must be emptied from the container and the container must not be used to manage regulated-material until the defect is repaired.
(40 CFR 63.926(a)(3)(ii) as referenced by 40 CFR 63.688((b)(1)(i) and (b)(3)(i)))

2) The owner or operator shall keep records demonstrating the use of level one and level two controls. (40 CFR 63.922 and 63.923)

iv. See Appendix A for HAP monitoring and recordkeeping requirements.

j. **Unit Operation**

i. For Emission Point 60-100, the owner or operator shall keep records of CEMS output for opacity, nitrogen oxides, carbon monoxide, and either oxygen or carbon dioxide emissions. (Regulation 7.01, section 5.4)

ii. For Emission Point 60-100, CEMS, continuous recording equipment, and parameter monitors shall be installed, calibrated, tested, and operated according to District Regulation 7.01, Appendix B of 40 CFR 60.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **$PM/PM_{10}$**

There are no reporting requirements for this equipment.

b. **Opacity**

For Emission Points 60-100 and 60-500, the report shall include:

i. Emission Unit number and Emission Point number;

ii. The beginning and ending date of the reporting period;

iii. The date, time and results of each Method 9 that exceeded the opacity standard or the date, time, and results that the opacity recorded by the COMS for Emission Point 60-100. (If being used to monitor opacity for Emission Point 60-500, the date, time and results that the opacity exceeded the opacity standard for Emission Point 60-500.) If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

iv. Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

c. **$NO_x$**

i. For Emission Point 60-100, the owner or operator shall submit a quarterly report on any excursions from the limits required by S1.c.ii and S1.c.iv. (40 CFR 60.49b(t)(4)(i); 40 CFR 60.49b(i))

ii. For Emission Point 60-100, the owner or operator shall submit a quarterly report to the District of all records required in 40 CFR 60.48b. This report shall be postmarked by the 30th day following the end of the calendar quarter. (40 CFR 60.49b(i))

iii. For Emission Points 60-100 and 60-500, the owner or operator shall comply with all reporting requirements of the approved $NO_x$ RACT plan. See Appendix B of this permit.

iv. For Emission Point 60-100, the owner or operator shall report any exceedances of the 12 consecutive month $NO_x$ emission limit. The report shall include the following:

1) Emission Unit number and Emission Point number for each exceedance;

2) The beginning and ending date of the reporting period;

3) The monthly and 12 consecutive month $NO_x$ emissions;

4) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

d. **$SO_2$**

The owner or operator shall certify that only very low sulfur fuel oil meeting this definition or no fuel oil was combusted in the affected facility during the reporting period.

e. **VOC**

i. For Emission Points 64-130 and 64-137, the owner or operator shall report any exceedances of the 20,000 gallon limit per day of loading volatile organic materials. The report shall include the following:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of all periods of exceedance of the loading limit and the operating parameters. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) The daily amount of volatile organic material loaded, in gallons;

5) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

ii. For Emission Point 60-100, the owner or operator shall report any exceedances of the 12 consecutive month VOC emission limit. The report shall include the following:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of all periods of exceedance of the VOC emission limit. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

4) The monthly and 12 consecutive month VOC emissions;

5) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

iii. For Emission Point 64-142:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of all deviations of the requirement to only store materials with a vapor pressure of less than 1.5 psia. If no deviation occur during the reporting period, the owner or operator shall submit a negative declaration;

4) Description of any corrective action taken for each deviation. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

f. **CO**

See S3.j.

g. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.g.ii.

iv. The owner or operator shall report any exceedances of the TAC limits in S1.g.i. The report shall include the following:

1) Emission Unit number and Emission Point number for each exceedance;

2) The beginning and ending date of the reporting period;

3) Year-to-date TAC emissions;

4) Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

h. **40 CFR 63 Subpart EEE and Construction Permit 449-90-C(R2)**

For Emission Point 60-100, the owner or operator shall include the following in the semi-annual reports:

i. The LWDF feed rate exceedances. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration.

ii. The date and time identifying the period when the temperature difference of the duplex temperature sensors (used to activate the automatic LWDF feed cutoff for the boiler) exceeds 25°F and LWDF is being used as fuel as well as the corrective action taken to return the temperature difference to less than 25°F. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

i. **HAP**

i. The owner or operator shall comply with the standards as specified in 40 CFR 61 Subpart V, as referenced by 40 CFR 63.691(b)(1).
(See Appendix C of this permit for 40 CFR 61 Subpart V (NESHAP) Additional Conditions)

ii. For Emission Points 64-140, 64-141, and 64-250, the owner or operator shall report any exceedance of the allowable maximum HAP vapor pressure for an off-site material to be stored in the tanks.
(40 CFR 63.685 (c)(1))

iii. See Appendix A for HAP reporting requirements.

j. **Unit Operation**

The owner or operator shall submit, for every calendar quarter, a report of excess emissions (as defined in applicable conditions) to the District. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:

i. The magnitude of excess emissions computed pursuant to Section 6 of District Regulation 7.01, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.

ii. All hourly averages shall be reported for $NO_x$ emissions. The hourly averages shall be made available in compatible computer format.

iii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted. The reason for the shutdown and whether it was manual or automatic, and whether a startup followed a manual or automatic shutdown shall be included.

iv. The date and time identifying each period during which the continuous monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.

v. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

vi. The owner or operator shall report the annual relative accuracy demonstration for the continuous emission monitoring system. The notification shall be postmarked at least thirty (30) days prior to such date; and the relative accuracy report shall be made pursuant to S2.h.ii.4).

S4. **Testing** (Regulation 2.16, section 4.3.1)

a. Boiler 100 and Boiler 500:

i. General

1) Plant-wide the owner or operator shall retest within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected equipment at least once every 10 years.

2) The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

3) The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

4) The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

5) The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test unless other regulatory requirements allow for a longer time period to submit the results.

6) If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as Emission Inventory Improvement Program (EIIP) and AP-42 or other methods upon written approval by the

District, whichever results in the greater (more conservative) emissions.

b. For Boiler 100 only**:**

i. To demonstrate compliance with S1.a.i.1), the owner or operator shall report results from testing conducted for RCRA permit requirements for particulate emissions or will conduct testing within 10 years since the last test whichever comes first.

ii. The automatic waste shut down device shall be tested for proper operation at least once every calendar month when LWDF is being used as fuel.

iii. If EPA, Kentucky, or the District requires additional performance testing at higher than permitted LWDF feed rates or lower than permitted boiler temperatures, a performance test to demonstrate compliance and any associated pretesting work prior to the performance test may be conducted at the increased feed rates or lower than permitted boiler temperatures for up to 720 hours. Such operations are allowed only for the purpose of determining whether Boiler 100 can operate at the proposed LWDF feed rates or lower than permitted boiler temperatures. This facility shall meet all terms and conditions specified in this permit and as specified in local and federal regulations while operating at higher than permitted LWDF feed rates or lower than permitted boiler temperatures. Emission limits shall also be met during the test including any pretests. Thirty (30) days before the test, Rohm and Haas shall submit to the District any proposed temporary operating limits that will be used during the test period, and the expected test dates.

c. For Emission Point 60-500 only:

The owner or operator shall conduct a stack test once per five year permit term to demonstrate compliance with S1.a.ii (40 CFR 60.43b(b)). If Emission Point 60-500 only uses natural gas as fuel during the five-year permit term, then no stack test for PM will be required for that emission point.

**U-UTIL-Steam Comments**

1. The source submitted documentation on March 2, 2012 that demonstrated that 0.10 pounds per million BTU actual total heat input was a more restrictive standard than 0.08 gr/dscf corrected to 7% oxygen. Previously, both standards were listed and the more restrictive standard was to be applied. Therefore, the less restrictive standard was removed.

2. A one-time compliance demonstration was submitted on June 11, 2003 for the PM limit of 108.7 tons per 12 consecutive month period uncontrolled for Emission Point 60-100; therefore, there are no monitoring, recordkeeping, or reporting requirements.

3. This equipment is subject to a site specific regulation in 40 CFR 60.49b(t) (Facility-specific $NO_x$ standard for Rohm and Haas Kentucky Incorporated's Boiler 100 located in Louisville, Kentucky).

4. *Air ratio control damper* is defined as the part of the low $NO_x$ burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame. *Flue gas recirculation line* is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

5. A one-time compliance demonstration was submitted on June 11, 2003 for the $SO_2$ limit of 529.8 tons per 12 consecutive month period uncontrolled for Emission Point 60-100; therefore, there are no monitoring, recordkeeping, or reporting requirements to demonstrate compliance with the ton per 12 consecutive month period emission limit. There are monitoring, recordkeeping, and reporting requirements for the lb/mmBtu $SO_2$ limit (CEMS) and the percent sulfur limit from the federal NSPS standard.

6. Per Rohm and Haas Comments on the Title V permit dated October 3, 2006, the company requested that the requirement be changed from limiting the vapor pressure to less than 1.5 psia to having submerged fill. Emission Point 64-142 was changed back to having a limit on the vapor pressure of less than 1.5 psia per Rohm and Haas revision request dated September 11, 2008 and revised in Construction Permit 525-08-C. Construction Permit 525-08-C was public noticed on September 26, 2008 through October 25, 2008.

7. A one-time compliance demonstration was submitted on June 11, 2003 which showed that the VOC limit of 13 tons per 12 consecutive month period cannot be exceeded. (The demonstration included VOC emissions from combustion)

8. The source conducted a RCRA Trial Burn and Risk Burn test in June 2003 which demonstrated a DRE of greater than 99.99% for both toluene and naphthalene. 40 CFR 63.1217(a)(5) requires that when a facility elects to comply with the carbon monoxide emissions standard rather than the hydrocarbon standard, it must be documented that, during the DRE test runs or their equivalent as provided by 40 CFR 63.1206(b)(7), hydrocarbons do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen. During the 2003 Trial Burn, the source demonstrated compliance with those standards. Rohm and Haas has also elected not to use any waste feed for Emission Point 60-100 which contains a Class 1 compound on the University of Dayton thermal stability based incinerability ranking list unit Rohm and Haas has demonstrated that the boiler can meet the DRE standard of 99.99% with a Class 1 Principal Organic Hazardous Constituent. See S1.h.viii. The District received a RCRA Trial Burn and Risk Burn test on 5/27/2014 and is under review by the District.

9. There are no standards if the source loads less than 200 gallons per day of volatile organic material in Regulation 7.22.

10. Based on air dispersion modeling using the emission limits specified in this permit, the carcinogenic risk for each Category 1 TAC is below 1.0 for non-industrial property and below 10.0 for industrial property with the emission limits specified in this permit. The carcinogenic risk for all Category 1 TACs for all processes is below 7.5 for nonindustrial property and below 75.0 for industrial property. The following Table represents the Carcinogenic Risk or $EAG_C$ for each Category 1 TAC based on the maximum off-site concentration predicted from the Screen3 air dispersion modeling runs. Since the maximum off-site Carcinogenic Risk meets the non-industrial $R_C$ of < 1.0 for individual process/process equipment and the plant-wide cumulative risk is < 7.5, the source has demonstrated compliance with the EA Goals for all Category 1 and 2 TACs.

| Emission Point | TAC | Maximum Concentration ($\mu g/m^3$) | Risk resulting from maximum off-site concentration |
|---|---|---|---|
| **60-100** | As | 0.000049 | 0.21 |
| | Cd | 0.000140 | 0.25 |

| | | | |
|---|---|---|---|
| | $Cr^{6+}$ | 0.001353 | 1.00 |
| | Ni | 0.03545 | 0.57 |
| | Pb | 0.22872 | 0.17 |
| **Facility-wide $R_C$** | | | **2.2** |

All other TACs in this emission unit of dimethyl formamide, ethyl acrylate, methyl methacrylate, and toluene are de minimis uncontrolled.

11. The most recently approved test, as of the issuance of this permit, was conducted on April 1, 2009 and showed a maximum LWDF feed rate of 14,044 lb/hr. A new test was received 5/27/2014 and is under review by the District.

12. These materials were presented in the construction permit modification application of December 15, 2009.

13. There are two temperature sensing systems installed at the back wall of the combustion chamber. These systems indicate slightly different temperature values due to their location and gas flow patterns within the boiler. Therefore, two separate temperature limits have been established; one for each temperature sensing system. The most recently approved minimum combustion chamber temperatures, as of the issuance of this permit, were documented in a report submitted on June 29, 2009 to be 1,179°F as the primary limit and 1,347°F as the secondary limit. A new test was received 5/27/2014 and is under review by the District.

14. The one minute time frame is an alternative requested by the company.

15. For emission points 60-100 and 60-500 the source "netted out" of PSD/Nonattainment NSR by removing three coal fired boilers (from construction permit application dated March 1, 1991):

| Pollutant | Previous Potential to Emit (tpy) | New Potential to Emit (tpy) | Emissions Difference (tpy) |
|---|---|---|---|
| **PM** | 309 | 246 | -63 |
| **$PM_{10}$** | 232 | 185 | -47 |
| **$SO_2$** | 1361 | 1054 | -307 |
| **$NO_x$** | 1157 | 800 | -357 |
| **CO** | 750 | 196 | -554 |

16. The potential uncontrolled VOC emissions for the project to install emission point 64-137 was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

17. The potential uncontrolled VOC emissions for the project to install emission point 64-130 was <2 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

18. 40 CFR 63 Subpart JJJJJJ is not applicable to 60-100 or 60-500, because 60-100 is covered by 40 CFR 63 Subpart EEE and therefore exempt (per 40 CFR 63.11195(c)) and 60-500 is gas-fired and therefore exempt (per 40 CFR 63.11195(e)).

19. The company has elected to comply with the hydrogen chloride and chlorine emissions limit as stipulated in 40 CFR 266.107(e), (which is stipulated in the company's RCRA Part B permit), as referenced by 40 CFR 63.1217(a)(6).

**UTILITIES PRODUCTION UNIT:** Utilities (Continued)

U-UTIL-WW Emission Unit Description**:** Utilities wastewater system Emission Points

**U-UTIL-WW Applicable Regulations**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 1.05 | Compliance with Emission Standards and Maintenance Requirements | 1, 4, and 5 |
| 6.43 | Volatile Organic Compound Emission Reduction Requirements | 1 through 4; and 18 |
| 7.36 | Standard of Performance of New Volatile Organic Compound Water Separators | 1 through 4 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Subject** | **Applicable Sections** |
| 5.00 | Standards for Toxic Air Contaminants and Hazardous Air Pollutants | 1 and 2 |
| 5.01 | General Provisions | 1 and 2 |
| 5.14 | Hazardous Air Pollutants and Source Categories | 1 and 2 |
| 5.20 | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant | 1 through 6 |
| 5.21 | Environmental Acceptability for Toxic Air Contaminants | 1 through 5 |
| 5.22 | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5 |
| 5.23 | Categories of Toxic Air Contaminants | 1 through 6 |

| U-UTIL-WW Emission Points | | | | | |
|---|---|---|---|---|---|
| **ID ("E-UTIL-" Prefix)** | **Description** | **Applicable Regulation(s)** | **Allowable Emission/ Equipment Standard** | **Control Device ("C-UTIL-" Prefix)** | **Stack ID ("S-UTIL-" Prefix)** |
| 66-160 | Plant Separator | 6.43 | Gutter and downspout type weir overflow | N/A | 66-160 |
| | | 7.36 | See S1.a.i. | | |
| 66-167 | Plant WW Surge Tank 515,000 gal 1961 | 5.00, 5.01, 5.20, 5.21, 5.22, 5.23 | See S1.c. | N/A | 66-167 |

## U-UTIL-WW Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Point 66-160, the owner or operator shall not recover 200 gallons a day or more of any volatile organic compounds from any equipment which processes, refines, stores, or handles hydrocarbons with a Reid vapor pressure of 0.5 psia or greater, unless the emissions of all hydrocarbon vapors and gases are reduced 90% by weight. All gauging and sampling devices shall be gas tight except when gauging and/or sampling is in progress. Standards may be met by employing one or more of the following features: floating roof, submerged fill pipes, or a vapor recovery system. (Regulation 7.36, section 3)

ii. For Emission Point 66-160, the owner or operator shall equip this equipment with a gutter and downspout type weir overflow.
(Regulation 6.43, section 18.4)

b. **HAP**

See Appendix A for HAP standards.

c. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.
(Regulations 5.00 and 5.21) (See Comment 2)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Point 66-160, the owner or operator shall maintain monthly records of the daily average quantity of VOCs removed having a Reid vapor pressure of 0.5 psia or greater.

b. **HAP**

See Appendix A for HAP monitoring and recordkeeping requirements.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above de minimis uncontrolled.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

i. Emission Unit number and Emission Point number;

ii. The beginning and ending date of the reporting period;

iii. Identification of the operating parameters being monitored;

iv. Identification of any day in which more than 200 gallons of VOC with a Reid vapor pressure of 0.5 psia or greater is recovered from the equipment. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

v. Description of any corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

b. **HAP**

See Appendix A for HAP reporting requirements.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
(Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.c.ii.

**U-UTIL-WW Comments**

1. The potential uncontrolled VOC emissions for the project to install emission point 66-160 was <1 tpy which was below the significant level of 40 tpy for PSD/Nonattainment NSR.

2. The District determined on March 13, 2013 that potential uncontrolled individual TAC emissions of acetophenone, 1,3-butadiene, cumene, ethyl acrylate, ethylbenzene, methyl metharylate, naphthalene, styrene, toluene, and xylene, were de minimis.

## Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

## Off-permit Documents

| Document | Date |
|---|---|
| Rule Effectiveness Plan | 20 February 1995 |
| 1.05 Plan | 7 November 1993 |
| VOC One-time Demonstration | 1 August 2003 |
| PM One-time Demonstration | 1 August 2003 |
| VOC Retro-BACTs for Regulation 7.25 | 1 August 2003 |
| VOC BACT for U-KAC Reactor | 3 July 2001 |
| VOC BACT for U-KAC Loading | 17 April 1997 |
| VOC BACT for U-KAC-D Pelletizer | 4 February 1999 |

## Alternative Operating Scenarios

| Description | Emission Unit |
|---|---|
| Bypassing/Controlled Modes for Emission Point E-KV2-03-330 | U-KV2-Dryer |
| Bypassing/Controlled Modes for Emission Point E-KVPA-09-125 | U-KVPA-Dry |
| Bypassing/Controlled Modes for the Regenerative Thermal Oxidizer | U-KAC and U-KB |

| Source-wide HAP Speciation | | | |
|---|---|---|---|
| **HAP** | **CAS No.** | **HAP** | **CAS No.** |
| Acetophenone | 98-86-2 | Hydrochloric acid | 7647-01-0 |
| Acrylic acid | 79-10-7 | Hydroquinone | 123-31-9 |
| Acrylonitrile | 107-13-1 | Methanol | 67-56-1 |
| Asbestos | 1332-21-4 | Methyl methacrylate | 80-62-6 |
| Benzene | 71-43-2 | Methylene chloride | 75-09-2 |
| 1,3-Butadiene | 106-99-0 | Naphthalene | 91-20-3 |
| Ethyl acrylate | 140-88-5 | Styrene | 100-42-5 |
| Ethyl benzene | 100-41-4 | Toluene | 108-88-3 |
| Ethylene glycol | 107-2111 | Xylenes | 1330-20-7 |
| Formaldehyde | 50-00-0 | | |

**Insignificant Activities**

| Equipment | Quantity | PTE(tpy) | Reg. Basis |
|---|---|---|---|
| Emergency relief vents, stacks, and ventilating systems (not otherwise regulated) | 39 | 0 | Regulation 1.02, Appendix A |
| Lab ventilating and exhausting systems for nonradioactive materials | 11 | 0.01 VOC | Regulation 1.02, Appendix A |
| Portable Diesel or Gasoline Storage Tank <500 gal | 1 | 0.005 VOC | Regulation 1.02, Appendix A |
| Storage Tanks containing fuel or lubricating oils with v.p. <10 mmHg at 20°C | 2 | 0.015 VOC | Regulation 1.02, Appendix A |
| VOC Storage Tanks 250 gallons or less | 2 | 0.12 VOC | Regulation 1.02, Appendix A |
| Pressurized VOC Storage Vessels | 2 | 0.035 VOC | Regulation 1.02, Appendix A |
| Diesel or fuel oil storage tanks that are not used for distribution, sale or resale, and that have less than two times the capacity of the vessel in annual turnover of the fluid contained | 4 | 0.02 VOC | Regulation 1.02, Appendix A |

| Equipment | Quantity | PTE(tpy) | Reg. Basis |
|---|---|---|---|
| Periodic filter change-outs for non-water-based product | 22 (approximate number of filters in non-water based service) | 0.3 VOC | Regulation 1.02 |
| Whitewater sewer system | 2 | See individual units | Regulation 1.02 |
| Whitewater sewer – KVK unit | 1 | 0.35 VOC | Regulation 1.02 |
| Whitewater sewer – Dryers unit | 1 | 0.85 VOC | Regulation 1.02 |
| Process wastewater – KAC unit | 1 | 0.12 VOC | Regulation 1.02 |
| Process wastewater – KVK unit | 1 | 0.11 VOC | Regulation 1.02 |
| Process wastewater – Dryers unit | 1 | 0.92 VOC | Regulation 1.02 |
| KB Transfer System for Tank (14-785) E-KB-03-792 (U-KB-Tanks1) | 1 | 0.008 PM | Regulation 1.02 |

**IA Comments**

1) Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.

2) Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.

3) Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment.

6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

7) The owner or operator shall submit an updated list of Insignificant Activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

**IA1 Emission Unit Description: Cold cleaners group**

**IA1 Applicable Regulations:**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 6.18 | Standards of Performance for Solvent Metal Cleaning Equipment | 1, 2, 3, 4 |

**IA1 Equipment:**

| Emission Point | Description | Applicable Regulation(s) | Control ID |
|---|---|---|---|
| PW | Three (3) Cold Solvent Parts Washers with secondary reservoirs | 6.18 | N/A |

**IA1 Control Devices**: There are no control devices associated with Emission Unit IA1.

## IA1 Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

**VOC**

a. The owner or operator shall install, maintain, and operate the control equipment as follows: (Regulation 6.18, section 4)

i. The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. (Regulation 6.18, section 4.1.1)

ii. The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, section 4.1.2)

iii. A permanent, conspicuous label summarizing the operating requirements specified in Specific Condition S1.b. shall be installed on or near the cold cleaner. (Regulation 6.18, section 4.1.3)

iv. If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. (Regulation 6.18, section 4.1.4)

v. Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, section 4.1.6)

vi. The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, section 4.1.8)

b. The owner or operator shall observe at all times the following operating requirements: (Regulation 6.18, section 4.2)

i. Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
(Regulation 6.18, section 4.2.1)

ii. The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, section 4.2.2)

iii. The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, section 4.2.3)

iv. Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. (Regulation 6.18, section 4.2.4)

v. Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, section 4.2.5)

vi. A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities.
(Regulation 6.18, section 4.2.6)

vii. Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner.
(Regulation 6.18, section 4.2.7)

c. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). (Regulation 6.18, section 4.3.2)

S2. **Monitoring and Record keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**VOC**

The owner or operator shall maintain records that include the following for each purchase: (Regulation 6.18, section 4.4.2)

a. The name and address of the solvent supplier,

b. The date of the purchase,

c. The type of the solvent, and

d. The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

**VOC**

There are no compliance reporting requirements for this equipment.

**IA1 Comments**

1. Cold cleaners are an affected facility as defined in Regulation 6.18, but meet the definition of insignificant activities per Regulation 2.02, section 2.3.22.

2. Since this unit is an Insignificant Activity, this is by definition, Regulation 5.21, section 2.3, the emissions from this equipment is not required to be included in the environmental acceptability demonstration.

**IA2 Emission Unit Description: Existing Emergency generators**

**IA2 Applicable Regulations:**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 40 CFR 63 Subpart ZZZZ | National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines | 63.6585, 63.6590, 63.6603, 63.6605, 63.6612, 63.6625, 63.6640, 63.6650 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.02 | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | 1 through 5 |

**IA2 Equipment:**

| Emission Point | Description | Applicable Regulation(s) | Control ID |
|---|---|---|---|
| 66-GEN | 500 HP propane fired emergency generator | 5.02, 40 CFR 63 Subpart ZZZZ | N/A |
| B97-GEN | Building 97 emergency generator (model KTTA1962, installed 1988, 1.9 MMBtu/hr) | | |
| Bldg2ge | Emergency generator at rear of Building 2 (Cummins, model 4BT3-9-G4, installed 1999, 50 KW-hr) | | |
| FWpump1 | Fire Water Pump (model DDFP-L6FALH8418F, installed 1987, 0.67 MMBtu/hr) | | |
| FWpump2 | Fire Water Pump – Detroit Diesel (mode DDFDL6ATLH7107, installed 1990, 0.67 MMBtu/hr) | | |
| FWpump4 | Fire Water Pump (installed 1986, 0.67 MMBtu/hr) | | |

**IA2 Control Devices**: There are no control devices associated with Emission Unit IA2.

**IA2 Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **HAP** (40 CFR 63, Subpart ZZZZ)

i. There is no time limit on the use of the emergency stationary RICE in emergency situations. (40 CFR §63.6640(f)(1)(i))

ii. The owner or operator shall limit the operation of this unit to one hundred (100) hours in any calendar year during non-emergency events for the purpose of maintenance checks and readiness testing.
(40 CFR 63 Subpart ZZZZ §63.6640(f)(1)(ii))

iii. The owner or operator may operate the emergency stationary RICE up to fifty (50) hours in any calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity: except that the emergency engine may be operated for a maximum of fifteen (15) hours per year as part of a demand response program if the regional transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or emergency deficiency, or unacceptable voltage level.
(40 CFR 63 Subpart ZZZZ §63.6640(f)(1)(iii))

iv. The owner or operator of the emergency generator shall perform the below listed maintenance required in Table 2(d) of Subpart ZZZZ. The engine must be installed and configured according to the manufacturer's specifications. (40 CFR §63.6603(a) and Table 2(d))

1) The owner or operator shall change the oil and filter every 500 hours of operation or annually, whichever comes first. The owner or operator may utilize an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed every 500 hours or annually, whichever comes first, and must meet the requirements listed below.

(a) The Total Base Number measured in the oil may be no higher than thirty percent (30%) of the Total Base Number of the oil when new. (40 CFR §63.6625(i))
(b) The viscosity of the oil must be within twenty percent (20%) of the viscosity of the oil when new.
(40 CFR §63.6625(i))
(c) The percent water content (by volume) of the oil must be less than 0.5. (40 CFR §63.6625(i))

2) The owner or operator shall inspect the air cleaners every 1,000 hours of operation or annually, whichever comes first.

3) The owner or operator shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **HAP** (40 CFR 63, Subpart ZZZZ and Regulation 5.02, section 4.87)

i. General requirements for complying with 40 CFR 63, Subpart ZZZZ (40 CFR 63.6605)

1) The owner or operator shall be in compliance with the emission limitations and operating limitations in this subpart that apply to the affected facilities at all times. (40 CFR 63.6605(a))

2) At all times the owner or operator shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
(40 CFR 63.6605(b))

ii. Monitoring, installation, collection, operation, and maintenance requirements (40 CFR 63.6625):

1) The owner or operator shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 63.6625(e))

2) The owner or operator shall install a non-resettable hour meter if one is not already installed. (40 CFR 63.6625(f))

3) The owner or operator shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply. (40 CFR 63.6625(h))

4) The owner or operator has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator shall change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator shall change the oil within 2 days or before commencing operation, whichever is later. The owner or operator shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. (40 CFR 63.6625(i))

iii. Record keeping requirements (40 CFR 63.6655):

1) If the affected source is required to comply with the emission and operating limitations, the owner or operator shall keep the following records (40 CFR 63.6655(a)):

(a) A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status was submitted, according to the requirement in § 63.10(b)(2)(xiv). (40 CFR 63.6655(a)(1))

(b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. (40 CFR 63.6655(a)(2))

(c) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii). (40 CFR 63.6655(a)(3))

(d) Records of all required maintenance performed on the air pollution control and monitoring equipment. (40 CFR 63.6655(a)(4))

(e) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (40 CFR 63.6655(a)(5))

2) The owner or operator shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) were operated and maintained according to your own maintenance plan. (40 CFR 63.6655(e))

3) The owner or operator shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. (40 CFR 63.6655(f))

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **HAP** (40 CFR 63, Subpart ZZZZ and Regulation 5.02, section 4.87)

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources shall report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. (40 CFR 63, Subpart ZZZZ, Footnote 2 of Table 2d)

**IA2 Comments**

1. Since this unit is an Insignificant Activity, this is by definition, Regulation 5.21, section 2.3, the emissions from this equipment are not required to be included in the environmental acceptability demonstration.

2. The emergency generators under this unit are subject to 40 CFR 63, Subpart ZZZZ since they involve existing RICE (constructed before 6/12/2006) and are located at an area source of HAP emissions. Specific requirements for fire pumps are only applicable to engines installed after 6/12/2006, therefore, there are no specific requirements in this emission unit.

**IA3 Emission Unit Description: New Emergency Engines**

**IA3 Applicable Regulations:**

| Federally Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 40 CFR 60 Subpart IIII | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines | 60.4200 - 4219 |
| 40 CFR 63 Subpart ZZZZ | National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines | 63.6603, 6604, 6605, 6625, 6640, 6645, 6655 |
| 40 CFR 80, Subpart I | Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel | 80.510 |
| 40 CFR 89, Subpart B | Emission Standards and Certification Provisions | 89.112, 89.113 |
| 40 CFR 1039, Subpart B | Emission Standards and Related Requirements | 1039.101, 1039.102, 1039.104, 1039.105 |

| District Only Enforceable Regulations | | |
|---|---|---|
| **Regulation** | **Title** | **Applicable Sections** |
| 5.02 | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | 1 through 5 |
| 7.02 | Federal New Source Performance Standards Incorporated by Reference | 1, 2, 3.1, 3.10, 4, 5 |

**IA3-EG Equipment:**

| Emission Point | Description | Applicable Regulation | Control ID | Stack ID |
|---|---|---|---|---|
| E-EG | Emergency diesel generators manufactured after April 1, 2006, with a maximum engine power less than or equal to 500 HP and located at an area source of HAP. | 5.02, 40 CFR 63, Subpart ZZZZ, 7.02, 40 CFR 60, Subpart IIII | N/A | N/A |

**IA3-EG Control Devices:**

There are no control devices associated with this equipment.

**IA3-EG Specific Conditions**

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **Unit operation**

i. The owner or operator of a pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines shall comply with the emission standards in Table 1 to this subpart. (40 CFR 60.4205(a)) (See Table 1)

Table 1 Emission standards for Pre-2007 model (40 CFR 60, Subpart IIII)

| Maximum Engine Power | Emission Standards in g/KW-hr (g/HP-hr) | | | | |
|---|---|---|---|---|---|
| | NMHC + $NO_X$ | HC | $NO_X$ | CO | PM |
| kW < 8 (hp < 11) | 10.5 (7.8) | | | 8.0 (6.0) | 1.0 (0.75) |
| 8 ≤ kW < 19 (11 ≤ hp < 25) | 9.5 (7.1) | | | 6.6 (4.9) | 0.80 (0.60) |
| 19 ≤ kW < 37 (25 ≤ hp < 50) | 9.5 (7.1) | | | 5.5 (4.1) | 0.80 (0.60) |
| 37 ≤ kW < 56 (50 ≤ hp < 75) | | | 9.2 (6.9) | | |
| 56 ≤ kW < 75 (75 ≤ hp < 100) | | | 9.2 (6.9) | | |
| 75 ≤ kW < 130 (100 ≤ hp < 175) | | | 9.2 (6.9) | | |
| 130 ≤ kW < 225 (175 ≤ hp < 300) | | 1.3 (1.0) | 9.2 (6.9) | 11.4 (8.5) | 0.54 (0.40) |
| 225 ≤ kW < 375 (300 ≤ hp < 500) | | 1.3 (1.0) | 9.2 (6.9) | 11.4 (8.5) | 0.54 (0.40) |

ii. The owner or operator of a 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that is not a fire pump engine shall comply with the emission standards (Table 2) obtained from 40 CFR 89.112, Table 1 for Tier 1 – 3 engines and 40 CFR 1039.101, Table 1 for Tier 4 engines, or the family emission limits (Table 3) obtained from 40 CFR 89.112, Table 2 for Tier 1 – 3 engines and 40 CFR 1039.101, Table 2 for Tier 4 engines, and smoke emission standards (Table 4) obtained from 40 CFR 89.113(a) for Tier 1-3 engines and 40 CFR 1039.105(b) for Tier 4 engines, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b)) (40 CFR 60.4202)

Table 2 EPA Tier 1-4 Nonroad Diesel Engine Emission Standards[a], g/kW-hr (g/bhp-hr)

| Maximum Engine Power | Tier | Model Year[b] | $NO_x$ | HC | NMHC +$NO_x$ | CO | PM |
|---|---|---|---|---|---|---|---|
| kW < 8 (hp < 11) | Tier 2/Tier 3 | 2005 | - | - | 7.5 (5.6) | 8.0 (6.0) | 0.8 (0.6) |
| | Tier 4 | 2008 | - | - | 7.5 (5.6) | 8.0 (6.0) | 0.4[c] (0.3) |
| 8 ≤ kW < 19 (11 ≤ hp < 25) | Tier 2/Tier 3 | 2005 | - | - | 7.5 (5.6) | 6.6 (4.9) | 0.8 (0.6) |
| | Tier 4 | 2008 | - | - | 7.5 (5.6) | 6.6 (4.9) | 0.4 (0.3) |
| 19 ≤ kW < 37 (25 ≤ hp < 50) | Tier 2/Tier 3 | 2004 | - | - | 7.5 (5.6) | 5.5 (4.1) | 0.6 (0.45) |
| | Tier 4 | 2008 | - | - | 7.5 (5.6) | 5.5 (4.1) | 0.3 (0.22) |
| | | 2013 | - | - | 4.7 (3.5) | 5.5 (4.1) | 0.03 (0.022) |
| 37 ≤ kW < 56 (50 ≤ hp < 75) | Tier 2 | 2004 | - | - | 7.5 (5.6) | 5.0 (3.7) | 0.4 (0.3) |
| | Tier 3 | 2008 | - | - | 4.7 (3.5) | 5.0 (3.7) | 0.3[d] (0.22) |
| | Tier 4 | 2013 | - | - | 4.7 (3.5) | 5.0 (3.7) | 0.03 (0.022) |
| 56 ≤ kW < 75 (75 ≤ hp < 100) | Tier 2 | 2004 | - | - | 7.5 (5.6) | 5.0 (3.7) | 0.4 (0.3) |
| | Tier 3 | 2008 | - | - | 4.7 (3.5) | 5.0 (3.7) | 0.4 (0.3) |
| | Tier 4 | 2012-2014[e] | 0.4 (0.3) | 0.19 (0.14) | - | 5.0 (3.7) | 0.02 (0.015) |
| 75 ≤ kW < 130 (100 ≤ hp < 175) | Tier 2 | 2003 | - | - | 6.6 (4.9) | 5.0 (3.7) | 0.3 (0.2) |
| | Tier 3 | 2007 | - | - | 4.0 (3.0) | 5.0 (3.7) | 0.3 (0.2) |
| | Tier 4 | 2012-2014[e] | 0.4 (0.3) | 0.19 (0.14) | - | 5.0 (3.7) | 0.02 (0.015) |
| 130 ≤ kW < 225 (175 ≤ hp < 300) | Tier 2 | 2003 | - | - | 6.6 (4.9) | 3.5 (2.6) | 0.2 (0.15) |
| | Tier 3 | 2006 | - | - | 4.0 (3.0) | 3.5 (2.6) | 0.2 (0.15) |
| | Tier 4 | 2011-2014[f] | 0.4 (0.3) | 0.19 (0.14) | - | 3.5 (2.6) | 0.02 (0.015) |
| 225 ≤ kW ≤ 375 (300 ≤ hp ≤ 500) | Tier 3 | 2006 | - | - | 4.0 (3.0) | 3.5 (2.6) | 0.2 (0.15) |
| | Tier 4 | 2011-2014[f] | 0.4 (0.3) | 0.19 (0.14) | - | 3.5 (2.6) | 0.02 (0.015) |

[a] Emission standards from 40 CFR 89.112 Table 1 for Tier 1-3 engines and 40 CFR 1039.101 Table 1 for Tier 4 engines.

[b] The model years listed indicate the model years for which the specified tier of limits take effect.

[c] Hand-startable, air-cooled, DI engines may be certified to Tier 2 standards through 2009 and to an optional PM standard of 0.6 g/kW-hr starting in 2010

[d] 0.4 g/kWh (Tier 2) if manufacturer complies with the 0.03 g/kW-hr standard from 2012

[e] PM/CO: full compliance from 2012; $NO_x$/HC: Option 1 (if banked Tier 2 credits used) – 50% engines shall comply in 2012-2013; Option 2 (if no Tier 2 credits claimed) – 25% engines shall comply in 2012-2014, with full compliance from 2014.12.31

[f] PM/CO: full compliance from 2011; $NO_x$/HC: 50% engines shall comply in 2011-2013

Table 3 EPA Tier 1-4 Nonroad Diesel Engine Family Emission Limits, g/kW-hr (g/bhp-hr)

| Maximum Engine Power | Tier | Model Year[a] | $NO_x$ | NMHC +$NO_x$ | PM |
|---|---|---|---|---|---|
| kW < 8 (hp < 11) | Tier 2/Tier 3 | 2005 | - | 10.5 (7.8) | 1.0 (0.7) |
| | Tier 4 | - | - | 10.5 (7.8) | 0.8 (0.6) |
| 8 ≤ kW < 19 (11 ≤ hp < 25) | Tier 2/Tier 3 | 2005 | - | 9.8 (7.3) | 0.8 (0.6) |
| | Tier 4 | - | - | 9.5 (7.1) | 0.8 (0.6) |
| 19 ≤ kW < 37 (25 ≤ hp < 50) | Tier 2/Tier 3 | 2004 | - | 9.5 (7.1) | 0.8 (0.6) |
| | Tier 4 | - | - | 7.5 (5.6) | 0.05 (0.037) |
| 37 ≤ kW < 56 (50 ≤ hp < 75) | Tier 2 | 2004 | - | 11.5 (8.6) | 1.2 (0.9) |
| | Tier 3 | 2008 | - | 7.5 (5.6) | 1.2 (0.9) |
| | Tier 4 | - | - | 7.5 (5.6) | 0.05 (0.037) |
| 56 ≤ kW < 75 (75 ≤ hp < 100) | Tier 2 | 2004 | - | 11.5 (8.6) | 1.2 (0.9) |
| | Tier 3 | 2008 | - | 7.5 (5.6) | 1.2 (0.9) |
| | Tier 4 | - | 0.8 (0.6) | - | 0.04 (0.03) |
| 75 ≤ kW < 130 (100 ≤ hp < 175) | Tier 2 | 2003 | - | 11.5 (8.6) | 1.2 (0.9) |
| | Tier 3 | 2007 | - | 6.6 (4.9) | 1.2 (0.9) |
| | Tier 4 | - | 0.8 (0.6) | - | 0.04 (0.03) |
| 130 ≤ kW < 225 (175 ≤ hp < 300) | Tier 2 | 2003 | - | 10.5 (7.8) | 0.54 (0.04) |
| | Tier 3 | 2006 | - | 6.6 (4.9) | 0.54 (0.4) |
| | Tier 4 | - | 0.8 (0.6) | - | 0.04 (0.03) |
| 225 ≤ kW ≤ 375 (300 ≤ hp ≤ 500) | Tier 3 | 2006 | - | 6.4 (4.8) | 0.54 (0.4) |
| | Tier 4 | - | 0.8 (0.6) | - | 0.04 (0.03) |

Table 4 EPA Tier 1-4 Smoke Emission Standards

| Maximum Engine Power | Tier | Smoke Emission Standards |
|---|---|---|
| 0 < kW ≤ 375 (0 < hp ≤ 500) | Tier 1 | 20% during the acceleration mode<br>15% during the lugging mode; or<br>50% during the peaks in either the acceleration or lugging modes. |
| | Tier 2 | |
| | Tier 3 | |
| | Tier 4 | |

iii. The owner or operator of an emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conducts performance tests in-use shall meet the NTE standards as indicated in the Testing section of this permit. (40 CFR 60.4205(e))

iv. The owner or operator of any modified or reconstructed emergency stationary CI ICE subject to this subpart shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in Table 2, Table 3, or the Testing section of this permit. (40 CFR 60.4205(f))

v. The owner or operator that is required comply with the emission standards specified in 40 CFR 60, Subpart IIII shall do all of the following:

vi. (40 CFR 60.4211(a))

1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; (40 CFR 60.4211(a)(1))

2) Change only those emission-related settings that are permitted by the manufacturer; (40 CFR 60.4211(a)(2))

vii. For a pre-2007 model year stationary CI internal combustion engine that shall comply with the emission standards specified in Table 1, the owner or operator shall demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.
(40 CFR 60.4211(b))

1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.
(40 CFR 60.4211(b)(1))

2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the same methods specified in this subpart and these methods shall have been followed correctly.
(40 CFR 60.4211(b)(2))

3) Keeping records of engine manufacturer data indicating compliance with the standards. (40 CFR 60.4211(b)(3))

4) Keeping records of control device vendor data indicating compliance with the standards. (40 CFR 60.4211(b)(4))

5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in the Testing section of this permit, as applicable.
(40 CFR 60.4211(b)(5))

viii. For a 2007 model year and later stationary CI internal combustion engine that shall comply with the emission standards specified in Table 2 and Table 3, the owner or operator shall purchase an engine certified to the emission standards in Table 2 and Table 3, as applicable for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.
(40 CFR 60.4211(c))

ix. For a modified or reconstructed stationary CI internal combustion engine that shall comply with the emission standards specified in Table 2, Table 3, or the Testing section of this permit, the owner or operator shall demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section. (40 CFR 60.4211(e))

1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in Table 2, Table 3, or the Testing section of this permit, as applicable. (40 CFR 60.4211(e)(1))

2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in the Testing section of this permit, as appropriate. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction.
(40 CFR 60.4211(e)(2))

x. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year is prohibited. If the owner or operator does not operate the engine according to the requirements below, the engine will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines.
(40 CFR 60.4211(f))

1) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))

2) The owner or operator may operate the emergency stationary ICE for any combination of the purposes specified in 60 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 60 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph.
(40 CFR 60.4211(f)(2)).

(a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
(40 CFR 60.4211(f)(2)(i))

(b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
(40 CFR 60.4211(f)(2)(ii))

(c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. (40 CFR 60.4211(f)(2)(iii))

3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))

(a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (40 CFR 60.4211(f)(3)(i))

(i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; (40 CFR 60.4211(f)(3)(i)(A))

(ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (40 CFR 60.4211(f)(3)(i)(B))

(iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (40 CFR 60.4211(f)(3)(i)(C))

(iv) The power is provided only to the facility itself or to support the local transmission and distribution system. (40 CFR 60.4211(f)(3)(i)(D))

(v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. (40 CFR 60.4211(f)(3)(i)(E))

b. **Fuel requirements**

Beginning October 1, 2010, the owner or operator of a stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that uses diesel fuel shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted: (40 CFR 60.4207(b))

1) Sulfur content: 15 parts per million (ppm) maximum for NR diesel fuel. (40 CFR 80.510(b)(1)(i))

2) A minimum cetane index of 40; or (40 CFR 80.510(b)(2)(i))

3) A maximum aromatic content of 35 volume percent. (40 CFR 80.510(b)(2)(ii))

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **Unit Operation**

i. The owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines shall install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))

ii. The owner or operator is not required to submit an initial notification. Starting with the model years in Table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner shall record the time of operation of the engine and the reason the engine was in operation during that time. (40 CFR 60.4214(b))

Table 5 Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

| Engine Power | Starting Model Year |
|---|---|
| $19 \leq kW < 56$ ($25 \leq hp < 75$) | 2013 |
| $56 \leq kW < 130$ ($75 \leq hp < 175$) | 2012 |
| $130 \leq kW \leq 375$ ($175 \leq hp \leq 500$) | 2011 |

b. **Fuel requirements**

The owner or operator shall maintain records of the fuel MSDS sheets and receipts showing dates, amounts of fuel purchased, sulfur content of fuel purchased and supplier's name and address, to show compliance with Specific Condition S1.b.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall submit compliance reports that include the information in this section.

a. **Unit Operation**

i. The owner or operator is not required to submit an initial notification. (40 CFR 60.4214(b))

ii. The owner or operator shall identify all periods of exceeding the hour limits specified in Specific Condition S1.a.x during the reporting period. The compliance report shall include the following:

1) Identification of all periods during which a deviation occurred;

2) A description, including the magnitude, of the deviation;

3) If known, the cause of the deviation;

4) A description of all corrective actions taken to abate the deviation; and

5) If no deviations occur during a reporting period, the report shall contain a negative declaration.

iii. For an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in S1.a.x.2)(b) and S1.a.x.2)(c), or that operates for the purposes specified in S1.a.x.3)(a), the owner or operator shall submit an annual report according to the requirements in the following paragraphs:
(40 CFR 60.4214(d))

1) The report shall contain the following information:
(40 CFR 60.4214(d)(1))

(a) Company name and address where the engine is located. (40 CFR 60.4214(d)(1)(i))

(b) Date of the report and beginning and ending dates of the reporting period. (40 CFR 60.4214(d)(1)(ii))

(c) Engine site rating and model year.
(40 CFR 60.4214(d)(1)(iii))

(d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
(40 CFR 60.4214(d)(1)(iv))

(e) Hours operated for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii).
(40 CFR 60.4214(d)(1)(v))

(f) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii). (40 CFR 60.4214(d)(1)(vi))

(g) Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
(40 CFR 60.4214(d)(1)(vii))

2) The first report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent reports for each calendar year shall be submitted as required by your operating permit. (40 CFR 60.4214(d)(2))

3) The report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. (40 CFR 60.4214(d)(3))

b. **Fuel requirements**

There are no routine compliance reporting requirements for this equipment.

S4. **Testing (Regulation 2.16, section 4.3.1)**

a. **Testing requirements (40 CFR 60, Subpart IIII)**

The owner or operator of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart shall do so according to the following paragraphs: (40 CFR 60.4212)

i. The performance test shall be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. (40 CFR 60.4212(a))

ii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 shall not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039. (40 CFR 60.4212(b))

iii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in Table 2 or Table 3, as applicable, shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 2 or Table 3, determined from the following equation: (40 CFR 60.4212(c))

NTE requirement for each pollutant = (1.25) × (STD) (Eq. 1)

Where:

STD = The standard specified for that pollutant in Table 2 or Table 3.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in Table 2 or Table 3 may follow the testing procedures specified in 40 CFR 60.4213 of this subpart, as appropriate.

iv. Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Table 1 shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 1, determined from the following equation: (40 CFR 60.4212(d))

Where:
STD = The standard specified for that pollutant in Table 1.

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Table 1 may follow the testing procedures specified in 40 CFR 60.4213, as appropriate.

v. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 shall not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c). (40 CFR 60.4212(e))

b. **General testing requirements**

The owner or operator shall construct all equipment in such a manner that the following testing requirements can be performed.

i. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the test. They shall include the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The

audit samples shall be available for verification by the District during the onsite testing. (See Comment 3)

iv. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.

**IA3-EG Comment**

1. This unit is is subject to 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, because it involves a stationary reciprocating internal combustion engine (RICE) located at a major source of HAP emissions. The proposed new stationary RICE meets the definition in 40 CFR 63.6675 of an emergency stationary RICE, which, per 40 CFR 63.6590(b)(1)(i), does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and of 40 CFR 63 Subpart A.

2. The associated storage tank for diesel fuel is exempt from District permitting requirements in accordance with Regulation 1.02, section 3.9.2.

3. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

4. Potential emissions for this permitted operation are greatest for nitrogen oxides ($NO_x$). Based on AP-42 Emission Factors and 500 hours per year for an emergency generator, as defined by EPA, the potential $NO_x$ emissions for this permitted operation is less than 5 tons per year.

## Appendix A - Synthetic Minor Source HAP Requirements

## Appendix A Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

i. For Emission Points E-KAC-Tanks1- (14-122 and 14-535), see Emission Unit E-KAC-Tanks1 for the standards.

ii. For Emission Points E-KAC-Tanks3- (14-290, 14-370, 14-376, 14-126, 14-326, 14-332, 14-338, 14-346, 14-352, 14-525), see Emission Unit E-KAC-Tanks3 for the standards.

iii. For Emission Points E-KAC-Reactor- (14-236, 14-262, 14-400, 14-510, and 14-540), see Emissions Unit E-KAC-Reactor for the standards.

iv. For Emission Point E-KAC-Load-14-390, see Emission Unit E-KAC-Load for the standards.

v. For Emission Points E-KAC-Misc- (14-258, 14-705, and 14-706), see Emission Unit E-KAC-Misc for the standards.

vi. For Emission Points E-KB-Columns+- (03-810, 04-516, and 04-520), see Emissions Unit E-KB-Columns+ for the standards.

vii. For Emission Points E-KB-Tanks1- (03-801, 03-850, 03-851, 03-860, 03-880, 03-881, 03-930, 03-931, 04-521, 04-525, 04-880, and 13-800), see Emission Unit E-KB-Tanks1 for the standards.

viii. For Emission Points E-KVK-G&HReact- (03-100, 03-115, 03-200, and 03-215), see Emission Unit E-KVK-G&HReact for the standards.

ix. The vent gas stream shall not bypass the Regenerative Thermal Oxidizer (C-KAC-14-723) while in operation for more than 1.2 hours during any twenty-four hour day. The twenty-four hour day is the day starting at 00:00 am and running to 23:59:59 PM.
(Construction Permit 144-02-C(R1), dated May 31, 2003)

b. **HAP**

i. The owner or operator shall limit each single plantwide HAP emissions to less than 10 tons per 12 consecutive month period.
(Construction Permit 378-06-C(R1), dated August 23, 2011)
(See Comment 3)

ii. The owner or operator shall limit the total plantwide HAP emissions to less than 25 tons per 12 consecutive month period.
(Construction Permit 378-06-C(R1), dated August 23, 2011)
(See Comment 3)

iii. The owner or operator shall utilize controls at all times the process equipment is in operation and shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
(Construction Permit 378-06-C(R1), dated August 23, 2011)

iv. See S1.a.ix.

c. **HAP (LDAR)** (Construction Permit 378-06-C(R1), dated August 23, 2011)

These LDAR standards apply to pumps, valves, compressors, agitators, pressure relief devices, open-ended valves or lines, connectors, and instrumentation systems that operate in organic hazardous air pollutant (OHAP) service 300 hours or more during the calendar year. OHAP service means that a component either contains or contacts a fluid (liquid or gas) that is at least 5% by weight of total OHAPs. Components are exempt from these requirements if they are subject to 40 CFR 63 Subpart JJJ, 40 CFR 61 Subpart V, 40 CFR 264 Subpart BB, or 40 CFR 265 Subpart BB. Components in vacuum service (as defined as operating at an internal pressure which is below ambient pressure) are exempt from these requirements.

i. Each component shall be identified. Physical tagging is not required. Components can be identified on a plant site plan, in log entries, in an electronic database, or on process and instrumentation diagrams (P&IDs).

ii. When a leak is detected, it shall be repaired as soon as practicable, but not later than 30 days after a leak is detected. The owner or operator may delay the repair of equipment for which leaks have been detected if repair within 30 days is technically infeasible without a process unit shutdown. The owner or operator shall repair such equipment by the end of the next process unit shutdown.

iii. For pumps in light liquid service (as defined in 40 CFR 63.161),

1) The instrument reading that defines a leak is 1000 ppm or more above background.

2) Each pump in light liquid service that is equipped with a dual mechanical seal (as defined in 40 CFR 63.163(e)(1)) is exempt from monitoring.

iv. For pumps in heavy liquid service (as defined in 40 CFR 63.161),

1) The instrument reading that defines a leak is 2000 ppm or more above background.

2) Each pump in heavy liquid service that is equipped with a dual mechanical seal (as defined in 40 CFR 63.163(e)(1)) is exempt from monitoring.

v. For compressors, the instrument reading that defines a leak is 500 ppm or more above background.

vi. For pressure relief devices in gas/vapor, light liquid, and heavy liquid service (as defined in 40 CFR 63.161),

1) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background.

2) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by

an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release.

vii. For open-ended valves or lines,

1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.

3) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

4) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves.

5) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of Additional Conditions 1.vi.1), 2), and 3). (40 CFR 61.242-6(d))

6) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system are exempt.

viii. For valves in gas/vapor, light liquid, and heavy liquid service (as defined in 40 CFR 63.161), the instrument reading that defines a leak is 500 ppm or more above background.

ix. For agitators in gas/vapor, light liquid, and heavy liquid service (as defined in 40 CFR 63.161),

1) The instrument reading that defines a leak is 10,000 ppm or more above background.

2) Each agitator in heavy liquid service that is equipped with a dual mechanical seal (as defined in 40 CFR 63.163(d)(1)) is exempt from monitoring.

x. For connectors in gas/vapor, light liquid, and heavy liquid service (as defined in 40 CFR 63.161), the instrument reading that defines a leak is 500 ppm or more above background.

xi. For instrumentation systems in liquid service (as defined in 40 CFR 63.161), the instrument reading that defines a leak is 500 ppm or more above background.

d. **Fuel**

The supplemental fuel for the Regenerative Thermal Oxidizer (C-KAC-14-723) and the Alternative Thermal Oxidizer (ATO) shall be natural gas.
(Construction Permit 265-05-C, dated October 31, 2006)
(Regulation 2.16, section 4.3.5)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

i. The minimum combustion temperature for the Regenerative Thermal Oxidizer (C-KAC-14-723) and the Alternative Thermal Oxidizer (ATO) shall be 1455°F or the temperature established in the most recent performance testing. The owner or operator can retest to establish a different temperature. The averaging period for the combustion temperature shall be hourly.
(Regulation 2.16, section 4.3.5) (See Comment 2)

ii. The Regenerative Thermal Oxidizer (C-KAC-14-723) and the Alternative Thermal Oxidizer (ATO) shall be interlocked so that vent gas streams are not routed to the oxidizer if the hourly average combustion temperature goes below the minimum temperature specified in S2.a.i. Preventative maintenance shall be performed on the temperature interlock systems at least once per calendar year to monitor its proper operation. If the interlock system is operating improperly and this is discovered during the preventative maintenance, the owner or operator shall not route any vent gas streams through the oxidizer until the interlock system is repaired. Records shall be kept of the preventative maintenance as well as any corrective action taken.

iii. The Regenerative Thermal Oxidizer (C-KAC-14-723) and the Alternative Thermal Oxidizer (ATO) shall be equipped with temperature indicators for combustion temperature monitoring.

iv. Destruction of VOC's shall meet or exceed 95%, during normal (primary) operation. (See Comment 1)

v. The Regenerative Thermal Oxidizer (C-KAC-14-723) shall be equipped with a failsafe device designed to interrupt vent gas flow and vent to the ATO or the cold stack bypass should system experience an abnormal episode such as flame loss.

vi. The Alternative Thermal Oxidizer (ATO) shall be equipped with a failsafe device designed to interrupt vent gas flow and vent to the RTO or the cold stack bypass should system experience an abnormal episode such as flame loss.

vii. During each time the Regenerative Thermal Oxidizer (C-KAC-14-723) is bypassed while VOC emissions are being vented to it, the owner or operator shall keep a record of the duration and quantity of VOC emissions.

viii. During each time the Alternative Thermal Oxidizer (ATO) is bypassed while VOC emissions are being vented to it, the owner or operator shall keep a record of the duration and quantity of VOC emissions.

ix. For emission point E-KB-03-810 when complying with 40 CFR 64: Utilizing control device C-KAC-14-723 (RTO): (See Comment 5)

1) The owner or operator shall measure the combustion temperature, performed when testing the interlock.
(40 CFR 64.6(c)(1)(i-ii) and (b)(4))

2) The required temperature must be specified during the required stack testing on an hourly average. (RTO temperature during the last stack test (October 2006) was 1500° F) (40 CFR 64.6(c)(2))

3) If the combustion chamber temperature falls below the hourly average specified, the vent stream may be routed to the ATO or may bypass both control devices. A bypass is only permitted for no more than 72 minutes per day. (40 CFR 64.6(a)(2))

4) The temperature indicator shall be checked per manufacturer's instructions annually. (40 CFR 64.6(b)(3))

x. For emission point E-KB-03-810 when complying with 40 CFR 64: Utilizing control device C-KAC-14-726 (ATO): (See Comment 5)

1) The owner or operator shall measure the combustion temperature, performed when testing the interlock.
(40 CFR 64.6(c)(1)(i-ii) and (b)(4))

2) The required temperature must be specified during the required stack testing on an hourly average. (ATO temperature during the last stack test (October 2006) was 1367° F) (40 CFR 64.6(c)(2))

3) If the combustion chamber temperature falls below the hourly average specified, the vent stream may be routed to the ATO or may bypass both control devices. A bypass is only permitted for no more than 72 minutes per day. (40 CFR 64.6(a)(2))

4) The temperature indicator shall be checked per manufacturer's instructions annually. (40 CFR 64.6(b)(3))

b. **HAP**

i. The owner or operator shall monthly calculate and record the plantwide (including LDAR emissions) monthly and 12 consecutive month single and total HAP emissions.

ii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.

iii. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;

2) Start time and stop time;

3) Identification of the control device and process equipment;

4) HAP emissions during the bypass in tons per bypass;

5) Summary of the cause or reason for each bypass event;

6) Corrective action taken to minimize the extent or duration of the bypass event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

iv. See S2.a.vii.

c. **HAP (LDAR)**

i. Monitoring shall be conducted using Method 21 of 40 CFR 60, Appendix A.

ii. A component is considered safe-to-monitor, unless it is determined to be one of the following:

1) Unsafe-to-monitor is a component where personnel would be exposed to an immediate danger and for which a monitoring plan has been developed with an appropriate monitoring frequency that allows monitoring during times when it is safe-to-monitor.

2) Difficult-to-monitor is a component where access is difficult (requires a lift or scaffold over 6 feet above ground or requires other special arrangements to access). Difficult-to-monitor components shall be monitored at least annually if monthly, quarterly, or semiannual monitoring is otherwise required.

3) Impossible-to-monitor is a component that is inaccessible (buried, insulated in a way that prevents access, obstructed by equipment, unable to be reached by lift or scaffold up to 25 feet above ground, always unsafe-to-monitor). Impossible-to-monitor components are exempt from monitoring.

iii. Safe-to-monitor components shall be monitored on the following frequencies:

1) For pumps in liquid service, the owner or operator shall monitor each pump monthly.

2) For compressors in liquid service, the owner or operator shall monitor each compressor annually.

3) For pressure relief devices, the owner or operator shall monitor each pressure relief device after a pressure release.

4) For valves, the owner or operator shall monitor each valve quarterly unless one of the following requirements is met:

(a) In process units with less than 1% leaking valves in gas/vapor and light liquid service, the owner or operator may elect to monitor each valve once every two quarters. Percent leaking valves is defined in 40 CFR 63.168(e)(1).

(b) In process units with less than 0.5% leaking valves in gas/vapor and light liquid service, the owner or operator may elect to monitor each valve once every four quarters. Percent leaking valves is defined in 40 CFR 63.168(e)(1).

(c) The percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannually monitoring frequencies; and as an average of any three out of four consecutive monitoring periods for annually monitoring frequencies.

5) For agitators, the owner or operator shall monitor each agitator monthly.

6) For connectors, the owner or operator shall monitor each connector annually unless one of the following requirements is met:

(a) In process units with less than 1% leaking connectors, the owner or operator may elect to monitor each connector once every two years. Percent leaking connectors is defined in 40 CFR 63.174(i).

(b) In process units with less than 0.5% leaking connectors in a biennial leak detection and repair program, the owner or operator may elect to monitor each connector once every four years. Percent leaking connectors is defined in 40 CFR 63.174(i).

(c) The percent leaking connectors shall be calculated as a rolling average of two consecutive monitoring periods for all monitoring frequencies.

7) For instrumentation systems, the owner or operator shall monitor each instrumentation system annually.

iv. When a leak is detected, a readily visible identification shall be attached to the leaking component.

v. The owner or operator shall keep the required monitoring records in an electronic database.

vi. The owner or operator shall record the following information in the electronic database:

1) Component identification numbers and description

2) Process stream OHAP concentrations for each component

3) Monitoring schedule for each component

4) Identification of each component designation: safe-to-monitor, unsafe-to-monitor, or difficult-to-monitor.

5) Results of the required monitoring, including measured background levels

6) When a leak is detected, the component identification number, date the leak was detected, and the date of final repair.

d. **Fuel**

The owner or operator shall keep monthly records of all supplemental fuel combusted, to show compliance with S1.d.

S3. **Reporting (Regulation 2.16, section 4.3.1)**

a. **VOC**

i. For control devices:

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Number, duration, and cause of all exceedances. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

5) Quantity of VOC emissions during the exceedance;

6) Number and duration of each bypass. If no bypasses occur during the reporting period, the owner or operator shall submit a negative declaration;

7) Description of the corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

ii. For Emission Point E-KB-03-810 when controlled by control devices C-KAC-14-723 (RTO) and C-KAC-14-726 (ATO):

1) Emission Unit number and Emission Point number;

2) The beginning and ending date of the reporting period;

3) Identification of the operating parameters being monitored;

4) Date, time, and duration of any excursions. If no excursions occur during the reporting period, the owner or operator shall submit a negative declaration;

5) Description of the corrective action taken for each excursion. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

b. **HAP**

i. Emission unit ID number and emission point ID number;

ii. The beginning and ending date of the reporting period;

iii. The monthly and 12 consecutive month emissions for each single HAP and total HAPs;

iv. Description of any corrective action taken for each exceedance. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration;

v. The owner or operator shall report the following information regarding By-Pass Activity:

1) Number of times the HAP vent stream by-passes the control device and is vented to the atmosphere;

2) Duration of each by-pass to the atmosphere;

3) Calculated HAP emissions in tons for each by-pass; or

4) A negative declaration if no by-passes occurred.

c. **HAP (LDAR)**

i. Emission unit ID;

ii. The beginning and ending date of the reporting period;

iii. Number of each type of component for which a leak was detected;

iv. Number of each type of component monitored;

v. Total number of components of each type;

vi. The facts that explain each delay of repair;

vii. Any changes in the number of components;

viii. Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

d. **Fuel**

There are no reporting requirements for this standard.

S4. **Testing (**Regulation 2.16, section 4.3.1)

a. **General**

i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days from the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

ii. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix D)

i. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

iii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

iv. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

v. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **VOC**

i. The owner or operator shall perform a stack test, on the KAC emission points, KB distillation columns, Regenerative Thermal Oxidizer (C-KAC-14-723), and the Alternative Thermal Oxidizer (ATO), on the inlet and outlet of the control device or emission point. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing. (See Comment 4)

**Appendix A Comments**

1. This control device has been deemed to be BACT. Since this control device has a variable VOC load, the percent efficiency is also expected to vary. It is assumed to attain an average efficiency of 95% VOC destruction efficiency and to meet the reduction requirements of 85% for Regulation 6.24.

2. The most recent required stack test for the KAC emission points was performed on June 17-18, 2003. The most recent required stack test for the KB distillation columns was

performed on July 8, 2004. The most recent stack test for the Regenerative Thermal Oxidizer (C-KAC-14-723) was performed on October 25, 2006. The stack test results demonstrated that the RTO achieved 98.2% destruction efficiency at a minimum temperature of 1500°F. The most recent stack test for the Alternate Thermal Oxidizer (C-KAC-14-726) was performed on October 26, 2006. The stack test results demonstrated that the ATO achieved 99.2% destruction efficiency at a minimum temperature of 1375°F.

3. These HAP emission limits were taken to avoid applicability of 40 CFR 63 Subpart FFFF *Miscellaneous Organic NESHAP(MON)*. The limits will ensure that the source remains a synthetic minor source for HAPs.

4. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

5. The source is major for VOC and a control device is needed to achieve compliance with District Regulation 6.24 for Emission Point E-KB-03-810. In accordance with 40 CFR 64, Compliance Assurance Monitoring for Major Stationary Sources, the source was required to propose a CAM plan for VOC, based on current process and control device requirements and practices. The revised CAM plan was received on April 17, 2014.

## Appendix B - $NO_x$ RACT Plan (January 1, 2000)

1. When fossil fuel (natural gas or distillate fuel oil) alone is combusted, the oxides of nitrogen ($NO_x$, expressed as $NO_2$) emission from Boiler No. 100 shall not exceed 0.20 pound per million Btu (86 ng/J) of heat input, based upon a 30-day rolling average. This limit applies at all times during this fuel option, including periods of startup, shutdown, or malfunction.

2. When fossil fuel (natural gas or distillate fuel oil) and chemical by-product waste are simultaneously combusted in Boiler No. 100, the following provisions are applicable:

   A. The oxides of nitrogen ($NO_x$, expressed as $NO_2$) emission from the boiler shall not exceed 1.1 pounds per million Btu (473 ng/J) of heat input, based upon a 30-day rolling average. This limit applies at all times during this fuel option, including periods of startup, shutdown, or malfunction,

   B. The air ratio control damper tee handle shall be at a minimum of 5 inches out of the boiler, and

   C. The flue gas recirculation line shall be operated at a minimum of 10% open as indicated by its valve opening position indicator.

3. For the purpose of $NO_x$ RACT Plan Element No. 2, the following definitions shall apply:

   A. "Air ratio control damper" means the part of the low $NO_x$ burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame,

   B. "Chemical by-product waste" means any liquid or gaseous substance produced at a chemical manufacturing plant and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide levels greater than 50% or carbon monoxide levels greater than 10% are not included, and

   C. "Flue gas recirculation line" means the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

4. The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting for Boiler No. 100 shall be recorded during each 8-hour operating period during which any chemical by-product waste is combusted.

5. The owner or operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS), and record the output of the system, for measuring $NO_x$ emissions from Boiler No. 100. The following requirements apply to the CEMS:

   A. The CEMS shall be operated and data recorded during all periods of operation of the boiler except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments,

   B. The 1-hour average $NO_x$ emission rates measured by the CEMS shall be expressed in pounds per million Btu heat input and shall be used to calculate the average emission rates under $NO_x$ RACT Plan Element (Element) No. 1 and No. 2,

   C. The 1-hour averages shall be calculated using the data points required under 40 CFR §60.13(b). At least 2 data points shall be used to calculate each 1-hour average,

D. The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS,

E. The span value for $NO_x$ is 1000, and

F. When $NO_x$ emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7, Method 7a, or other reference methods approved by the District to provide emission data for a minimum of 75% of the operating hours in the boiler operating day, in at least 22 out of 30 successive boiler operating days.

6. Rohm and Haas shall maintain the records listed in 40 CFR §60.49b (g) for Boiler No. 100 with the following clarifications:

A. The $NO_x$ emission rates shall be expressed in pounds per million Btu heat input measured unless the owner or operator cannot maintain a CEMS whose output is recorded in pounds per million Btu without a significant additional cost for data conversion, in which case the $NO_x$ emission rates shall be expressed in ng/J , and

B. The applicable $NO_x$ emission limits are contained in Element No. 1 and No. 2. Each record shall be maintained for a minimum of 5 years and made available to the District upon request.

7. Boiler No. 500 shall comply with one of the following options:

A. Option 1: The boiler shall not have an annual capacity factor greater than 10.0% for any consecutive 12-month period. The term "annual capacity factor" means the ratio between the actual heat input to a boiler from fuel combusted during a consecutive 12-month period and the potential heat input to the boiler had it been operated for 8,760 hours during that consecutive 12-month period at the maximum steady state design heat input capacity. The maximum heat input capacity provided by the manufacturer shall be used unless the owner or operator determines the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1, or

B. Option 2: The $NO_x$ (expressed as $NO_2$) emission from Boiler No. 500 shall not exceed 0.20 pound per million Btu of heat input, based upon a 30-day rolling average. This limit applies at all times, including periods of startup, shutdown, or malfunction.

8. The owner or operator shall, before January 1, 2000, notify the District in writing as to which option will be applicable to Boiler No. 500 starting January 1, 2000. If Rohm and Haas decides to switch from this initial option, then Rohm and Haas shall notify the District in writing, before the date of implementing the other option, of its decision to switch to that option. Option 2 shall not be implemented unless a construction permit or modified operating permit is issued by the District that authorizes the use of Boiler No. 500 at a level greater than a 10% annual capacity factor.

9. If Option 1 of Element No. 8 is in effect, Rohm and Haas shall make a record of the type and amount of fuel combusted during each day of operation of Boiler No. 500. Rohm and Haas shall, at the end of each month, calculate and record, for Boiler No. 500, the annual capacity factor based upon the preceding consecutive 12-month period. Each record shall be maintained for a minimum of 5 years and made available to the District upon request.

10. If Option 2 of Element No. 8 is in effect, Rohm and Haas shall comply with the following requirements for Boiler No. 500:

    A. The $NO_x$ CEMS requirements as specified in Element No. 5, except the average emission rate is established in Element No. 8.B. and the span value for $NO_x$ is 500,

    B. Within 90 days after achieving the maximum production rate at which Boiler No. 500 will be operated, but not later than 210 days after implementation of Option 2, Rohm and Haas shall conduct the performance evaluation of the CEMS for Boiler No. 500 using the applicable performance specifications in 40 CFR Part 60 Appendix B and, within 60 days of the completion of the performance evaluation, submit the report for the performance evaluation to the District, and

    C. The maintenance of records as specified in Element No. 7, except the applicable $NO_x$ emission limit is contained in Element No. 8.

11. Rohm and Haas shall submit to the District the following reports:

    A. Excess emission reports for any excess emissions that occurred during the reporting period. "Excess emissions" means any calculated 30-day rolling average $NO_x$ emission rate, as determined under Element No. 5, that exceeds the emission limit contained in Element No. 1 and No. 2, or as determined under Element No. 11.A., that exceeds the emission limit contained in Element No. 8.B., and

    B. Reports containing the information required to be recorded by Element No. 7 and, if applicable, Element 11.C.

12. The reports required to be submitted by Element No. 12 shall reflect the preceding semi-annual period. Semi-annual periods shall run from January 1 to June 30 and July 1 to December 31. If no deviation occurred during the semi-annual period, the report shall contain a negative declaration. Each report shall be submitted within 60 days following the end of the semi-annual period.

13. In lieu of the requirements in this $NO_x$ RACT Plan, Rohm and Haas may comply with alternative requirements regarding emission limitations, equipment operation, test methods, monitoring, record keeping, or reporting, provided the following conditions are met:

    A. The alternative requirements are established and incorporated into an operating permit pursuant to a Title V Operating Permit issuance, renewal, or significant permit revision process as established in Regulation 2.16,

    B. The alternative requirements are consistent with the streamlining procedures and guidelines set forth in section II.A. of *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, March 5, 1996, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. The overall effect of compliance with alternative requirements shall consider the effect on an intrinsic basis, such as pounds per million Btu. However, alternative requirements that are developed based upon revisions to the applicable requirements contained in 40 CFR Part 60 shall be approvable pursuant to this Element,

    C. The U.S. Environmental Protection Agency (EPA) has not objected to the issuance, renewal, or revision of the Title V Operating Permit, and either

D. If the public comment period preceded the EPA review period, then the District had transmitted any public comments concerning the alternative requirements to EPA with the proposed permit, or

E. If the EPA and public comment periods ran concurrently, then the District had transmitted any public comments concerning the alternative requirements to EPA no later than 5 working days after the end of the public comment period.

The District's determination of approval of any alternative requirements is not binding on EPA. Noncompliance with any alternative requirement established pursuant to the Title V Operating Permit process constitutes a violation of the $NO_x$ RACT Plan.

## Appendix C - 40 CFR 61 Subpart V (NESHAP)

## Appendix C Specific Conditions

S1. **Standards**

**LDAR** (40 CFR 61 Subpart V)

a. Each piece of equipment to which 40 CFR 61 Subpart V applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment. (40 CFR 61.242-1(d))

b. For pumps, unless exempted by 40 CFR 61.242-2(d), (e), or (f), if an instrument reading of 10,000 ppm or greater is measured, a leak is detected or if there are indications of liquids dripping from the pump seal, a leak is detected. (40 CFR 61.242-2(b))

c. For compressors,

i. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to atmosphere, except as provided in 40 CFR 61.242-1(c) and 40 CFR 61.242-3(h) and (i). (40 CFR 61.242-3(a))

ii. Each compressor seal system as required in S1.c.i shall be:

1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or (40 CFR 61.242-3(b)(1))

2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 61.242-11; or (40 CFR 61.242-3(b)(2))

3) Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere. (40 CFR 61.242-3(b)(3))

iii. The barrier fluid shall not be in VHAP service and, if the compressor is covered by standards under 40 CFR part 60, shall not be in VOC service. (40 CFR 61.242-3(c))

iv. Each barrier fluid system as described in 40 CFR 61.242-3(a)-(c) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. (40 CFR 61.242-3(d))

d. For pressure relief devices in gas/vapor service,

i. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c). (40 CFR 61.242-4(a))

ii. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-4(b)(1))

e. For sampling connecting systems,

i. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as provided in 40 CFR 61.242-1(c). Gases displaced during filling of the sample container are not required to be collected or captured. (40 CFR 61.242-5(a))

ii. Each closed-purge, closed-loop, or closed vent system as required in 40 CFR 61.242-5(a) shall comply with the following requirements: (40 CFR 61.242-5(b))

1) Return the purged process fluid directly to the process line; or (40 CFR 61.242-5(b)(1))

2) Collect and recycle the purged process fluid; or (40 CFR 61.242-5(b)(2))

3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 61.242-11; or (40 CFR 61.242-5(b)(3))

4) Collect, store, and transport the purged process fluid to any of the following systems or facilities: (40 CFR 61.242-5(b)(4))

(i) A waste management unit as defined in 40 CFR 63.111 if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams; or (40 CFR 61.242-5(b)(4)(i))

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or (40 CFR 61.242-5(b)(4)(ii))

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR Part 261. (40 CFR 61.242-5(b)(4)(iii))

iii. In-situ sampling systems and sampling systems without purges are exempt from the requirements of 40 CFR 61.242-5(a) and (b). (40 CFR 61.242-5(c))

f. For open-ended valves or lines,

i. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 61.242-1(c). (40 CFR 61.242-6(a)(1))

ii. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. (40 CFR 61.242-6(a)(2))

iii. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. (40 CFR 61.242-6(b))

iv. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with S1.f.i and S1.f.ii at all other times. (40 CFR 61.242-6(c))

v. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of S1.f.i through S1.f.iv. (40 CFR 61.242-6(d))

vi. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in S1.f.i through S1.f.iv are exempt from the requirements of S1.f.i through S1.f.iv. (40 CFR 61.242-6(e))

vii. For valves, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (40 CFR 61.242-7(b))

viii. For pressure relief services in liquid service and connectors, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (40 CFR 61.242-8(b))

g. For surge control vessels and bottoms receivers, each surge control vessel or bottoms receiver that is not routed back to the process and that meets the conditions specified in table 1 or table 2 of 40 CFR 61 Subpart V shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel back to the process or to a control device as described in 40 CFR 61.242-11, except as provided in 40 CFR 61.242-1(c); or comply with the requirements of 40 CFR 63.119(b) or (c)). (40 CFR 61.242-9)

S2. **Monitoring and Recordkeeping**

**LDAR** (40 CFR 61 Subpart V)

a. For pumps,

i. Each pump shall be monitored monthly to detect leaks by the methods specified in 40 CFR 61.245(b), except as provided in 40 CFR 61.242-1(c) and in 40 CFR 61.242-1(d), (e), (f) and (g). (40 CFR 61.242-2(a)(1))

ii. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
(40 CFR 61.242-2(a)(2))

iii. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-2(c)(1))

iv. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 61.242-2(c)(2))

v. When each leak is detected as specified in 40 CFR 61.242-2, 61.242-3, 61.242-7, 61.242-8, and 61.135, the following requirements apply:
(40 CFR 61.246(b))

1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. (40 CFR 61.246(b)(1))

2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 61.242-7(c) and no leak has been detected during those 2 months. (40 CFR 61.246(b)(2))

3) The identification on equipment, except on a valve, may be removed after it has been repaired. (40 CFR 61.246(b)(3))

vi. When each leak is detected as specified in 40 CFR 61.242-2, 61.242-3, 61.242-7, 61.242-8, and 61.135, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: (40 CFR 61.246(c))

1) The instrument and operator identification numbers and the equipment identification number. (40 CFR 61.246(c)(1))

2) The date the leak was detected and the dates of each attempt to repair the leak. (40 CFR 61.246(c)(2))

3) Repair methods applied in each attempt to repair the leak. (40 CFR 61.246(c)(3))

4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 61.245(a) after each repair attempt is equal to or greater than 10,000 ppm. (40 CFR 61.246(c)(4))

5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (40 CFR 61.246(c)(5))

6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. (40 CFR 61.246(c)(6))

7) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days unrepaired. (40 CFR 61.246(c)(7))

8) Dates of process unit shutdowns that occur while the equipment is unrepaired. (40 CFR 61.246(c)(8))

9) The date of successful repair of the leak. (40 CFR 61.246(c)(9))

vii. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of S1.b, S2.a.i, and S2.a.ii, provided the following requirements are met: (40 CFR 61.242-2(d))

1) Each dual mechanical seal system is: (40 CFR 61.242-2(d)(1))

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or (40 CFR 61.242-2(d)(1)(i))

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 61.242-11; or
(40 CFR 61.242-2(d)(1)(ii))

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere.
(40 CFR 61.242-2(d)(1)(iii))

2) The barrier fluid is not in VHAP service and, if the pump is covered by standards under 40 CFR part 60, is not in VOC service.
(40 CFR 61.242-2(d)(2))

3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
(40 CFR 61.242-2(d)(3))

4) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
(40 CFR 61.242-2(d)(4))

(i) If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in 40 CFR 61.245 to determine the presence of VOC and VHAP in the barrier fluid.
(40 CFR 61.242-2(d)(4)(i))

(ii) If the monitor reading (taking into account any background readings) indicates the presence of VHAP, a leak is detected. For the purpose of this paragraph, the monitor may be calibrated with VHAP, or may employ a gas chromatography column to limit the response of the monitor to VHAP, at the option of the owner or operator.
(40 CFR 61.242-2(d)(4)(ii))

(iii) If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected.
(40 CFR 61.242-2(d)(4)(iii))

5) Each sensor as described in S2.a.vii.3) is checked daily or is equipped with an audible alarm. (40 CFR 61.242-2(d)(5))

6) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.
(40 CFR 61.242-2(d)(6))

7) If indications of liquids dripping from the pump seal exceed the criteria established in S2.a.vii.6), or if, based on the criteria established in S2.a.vii.6), the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.
(40 CFR 61.242-2(d)(6)(ii))

8) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-2(d)(6)(iii))

9) A first attempt at repair shall be made no later than five calendar days after each leak is detected. (40 CFR 61.242-2(d)(6)(iv))

viii. Any pump that is designated, as described in 40 CFR 61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of S2.a.i through S2.a.vii if the pump: (40 CFR 61.242-2(e))

1) Has no externally actuated shaft penetrating the pump housing, (40 CFR 61.242-2(e)(1))

2) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c), and (40 CFR 61.242-2(e)(2))

3) Is tested for compliance with S2.a.viii.2) initially upon designation, annually, and at other times requested by the Administrator. (40 CFR 61.242-2(e)(3))

ix. If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or fuel gas system or to a control device that complies with the requirements of 40 CFR 61.242-11, it is exempt from the requirements of 40 CFR 61.242-2(a) through (e). (40 CFR 61.242-2(f))

x. Any pump that is designated, as described in 40 CFR 61.246(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 61.242-2 (a) and (d)(4) through (6) if: (40 CFR 61.242-2(g))

1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 61.242-2(a); and (40 CFR 61.242-2(g)(1))

2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 61.242-2(c) if a leak is detected. (40 CFR 61.242-2(g)(2))

b. For compressors,

i. Each sensor as required in S2.a.vii.3) shall be checked daily or shall be equipped with an audible alarm unless the compressor is located within the boundary of an unmanned plant site. (40 CFR 61.242-3(e))

ii. The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. (40 CFR 61.242-3(e)(2))

iii. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under S2.b.ii, a leak is detected. (40 CFR 61.242-3(f))

1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-3(g))

2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 61.242-3(g)(2))

iv. A compressor is exempt from the requirements of 40 CFR 61.242-3 (a) and (b) if it is equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of 40 CFR 61.242-11, except as provided in S2.b.v. (40 CFR 61.242-3(h))

v. Any Compressor that is designated, as described in 40 CFR 61.246(e)(2), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of 40 CFR 61.242-3(a) through (h) if the compressor: (40 CFR 61.242-3(i))

1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c); and (40 CFR 61.242-3(i)(1))

2) Is tested for compliance with S2.b.v.1) initially upon designation, annually, and at other times requested by the Administrator. (40 CFR 61.242-3(i)(2))

c. For pressure relief devices in gas/vapor service,

i. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c). (40 CFR 61.242-4(b)(2))

ii. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 CFR 61.242-11 is exempt from the requirements of 40 CFR 61.242-4(a) and (b). (40 CFR 61.242-4(c))

iii. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of 40 CFR 61.242-4(a) and (b), provided the owner or operator complies with the requirements in S2.c.iv. (40 CFR 61.242-4(d)(1))

iv. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-4(d)(2))

d. For sampling connecting systems, there are no requirements.

e. For open-ended valves or lines, there are no requirements.

f. For valves,

i. Each valve shall be monitored monthly to detect leaks by the method specified in 40 CFR 61.245(b) and shall comply with S1.f.vii and S2.f.ii through S2.f.vi, except as provided in S2.f.ii, S2.f.iii, 40 CFR 61.243-1 or 40 CFR 61.243-2, and 40 CFR 61.242-1(c). (40 CFR 61.242-7(a))

ii. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. (40 CFR 61.242-7(c)(1))

iii. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. (40 CFR 61.242-7(c)(2))

iv. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-7(d)(1))

v. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 61.242-7(d)(2))

vi. First attempts at repair include, but are not limited to, the following best practices where practicable: (40 CFR 61.242-7(e))

1) Tightening of bonnet bolts; (40 CFR 61.242-7(e)(1))

2) Replacement of bonnet bolts; (40 CFR 61.242-7(e)(2))

3) Tightening of packing gland nuts; and (40 CFR 61.242-7(e)(3))

4) Injection of lubricant into lubricated packing. (40 CFR 61.242-7(e)(4))

vii. Any valve that is designated, as described in 40 CFR 61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of S2.f.i if the valve: (40 CFR 61.242-7(f))

1) Has no external actuating mechanism in contact with the process fluid; (40 CFR 61.242-7(f)(1))

2) Is operated with emissions less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c); and (40 CFR 61.242-7(f)(2))

3) Is tested for compliance with S2.f.vii.2) initially upon designation, annually, and at other times requested by the Administrator. (40 CFR 61.242-7(f)(3))

viii. Any valve that is designated, as described in 40 CFR 61.246(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of S2.f.i if: (40 CFR 61.242-7(g))

1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with S2.f.i; and (40 CFR 61.242-7(g)(1))

2) The owner or operator of the valve has a written plan that requires monitoring of the valve as frequent as practicable during safe-to-monitor times. (40 CFR 61.242-7(g)(2))

ix. Any valve that is designated, as described in 40 CFR 61.246(f)(2), as a difficult-to-monitor valve is exempt from the requirements of S2.f.i if: (40 CFR 61.242-7(h))

1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; (40 CFR 61.242-7(h)(1))

2) The process unit within which the valve is located is an existing process unit; and (40 CFR 61.242-7(h)(2))

3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. (40 CFR 61.242-7(h)(3))

x. The following information pertaining to all valves subject to the requirements of 40 CFR 61.242-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 61.242-2(g) shall be recorded in a log that is kept in a readily accessible location: (40 CFR 61.246(f))

1) A list of identification numbers for valves and pumps that are designated as unsafe to monitor, an explanation for each valve or pump stating why the valve or pump is unsafe to monitor, and the plan for monitoring each valve or pump. (40 CFR 61.246(f)(1))

2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve. (40 CFR 61.246(f)(2))

xi. The following information shall be recorded for valves complying with 40 CFR 61.243-2: (40 CFR 61.246(g))

1) A schedule of monitoring. (40 CFR 61.246(g)(1))

2) The percent of valves found leaking during each monitoring period. (40 CFR 61.246(g)(2))

g. For pressure relief services in liquid service and connectors,

i. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pressure relief devices in liquid service and connectors, the owner or operator shall follow either one of the following procedures, except as provided in 40 CFR61.242-1(c): (40 CFR 61.242-8(a))

1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 61.245(b) and shall comply with the requirements of 40 CFR 61.242-8(b) through (d). (40 CFR 61.242-8(a)(1))

2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. (40 CFR 61.242-8(a)(2))

ii. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10. (40 CFR 61.242-8(c)(1))

iii. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (40 CFR 61.242-8(c)(2))

iv. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 61.242-7(e). (40 CFR 61.242-8(d))

h. Delay of repair,

i. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. (40 CFR 61.242-10(a))

ii. Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in VHAP service. (40 CFR 61.242-10(b))

iii. Delay of repair for valves will be allowed if: (40 CFR 61.242-10(c))

1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (40 CFR 61.242-10(c)(1))

2) When repair procedures are affected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 61.242-11. (40 CFR 61.242-10(c)(2))

iv. Delay of repair for pumps will be allowed if: (40 CFR 61.242-10(d))

1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and (40 CFR 61.242-10(d)(1))

2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. (40 CFR 61.242-10(d)(2))

v. Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. (40 CFR 61.242-10(e))

i. The following information pertaining to all equipment to which a standard applies shall be recorded in a log that is kept in a readily accessible location: (40 CFR 61.246(e))

i. A list of identification numbers for equipment (except welded fittings) subject to the requirements of this subpart. (40 CFR 61.246(e)(1))

ii. A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background. (40 CFR 61.246(e)(2)(i))

iii. The designation of this equipment for no detectable emissions shall be signed by the owner or operator. (40 CFR 61.246(e)(2)(ii))

iv. A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 61.242-4(a). (40 CFR 61.246(e)(3))

v. The dates of each compliance test required in 40 CFR 61.242-2(e), 61.242-3(i), 61.242-4, 61.242-7(f), and 61.135(g). (40 CFR 61.246(e)(4)(i))

vi. The background level measured during each compliance test. (40 CFR 61.246(e)(4)(ii))

vii. The maximum instrument reading measured at the equipment during each compliance test. (40 CFR 61.246(e)(4)(iii))

viii. A list of identification numbers for equipment in vacuum service. (40 CFR 61.246(e)(5))

j. The following information shall be recorded in a log that is kept in a readily accessible location: (40 CFR 61.246(h))

i. Design criterion required in 40 CFR 61.242-2(d)(5), 61.242-3(e)(2), and 61.135(e)(4) and an explanation of the design criterion; and (40 CFR 61.246(h)(1))

ii. Any changes to this criterion and the reasons for the changes. (40 CFR 61.246(h)(2))

k. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in the applicability section of 40 CFR 61 Subpart V and other specific subparts of 40 CFR: (40 CFR 61.246(i))

i. An analysis demonstrating the design capacity of the process unit, and (40 CFR 61.246(i)(1))

ii. An analysis demonstrating that equipment is not in VHAP service. (40 CFR 61.246(i)(2))

l. Information and data used to demonstrate that a piece of equipment is not in VHAP service shall be recorded in a log that is kept in a readily accessible location. (40 CFR 61.246(j))

S3. **Reporting**

**LDAR** (40 CFR 61 Subpart V)

a. A report shall be submitted to the Administrator semiannually starting 6 months after the initial report required in 40 CFR 61.247(a), that includes the following information: (40 CFR 61.247(b))

i. Process unit identification. (40 CFR 61.247(b)(1))

ii. For each month during the semiannual reporting period, (40 CFR 61.247(b)(2))

1) Number of valves for which leaks were detected as described in 40 CFR 61.242-7(b) of 40 CFR 61.243-2. (40 CFR 61.247(b)(2)(i))

2) Number of valves for which leaks were not repaired as required in 40 CFR 61.242-7(d). (40 CFR 61.247(b)(2)(ii))

3) Number of pumps for which leaks were detected as described in 40 CFR 61.242-2(b) and (d)(6). (40 CFR 61.247(b)(2)(iii))

4) Number of pumps for which leaks were not repaired as required in 40 CFR 61.242-2(c) and (d)(6). (40 CFR 61.247(b)(2)(iv))

5) Number of compressors for which leaks were detected as described in 40 CFR 61.242-3(f). (40 CFR 61.247(b)(2)(v))

6) Number of compressors for which leaks were not repaired as required in 40 CFR 61.242-3(g). (40 CFR 61.247(b)(2)(vi))

7) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. (40 CFR 61.247(b)(2)(vii))

iii. Dates of process unit shutdowns which occurred within the semiannual reporting period. (40 CFR 61.247(b)(3))

iv. Revisions to items reported according to 40 CFR 61.247(a) if changes have occurred since the initial report or subsequent revisions to the initial report. (40 CFR 61.247(b)(4))

v. The results of all performance tests and monitoring to determine compliance with no detectable emissions and with 40 CFR 61.243-1 and 61.243-2 conducted within the semiannual reporting period. (40 CFR 61.247(b)(5))

b. In the first report submitted as required in 40 CFR 61.247(a), the report shall include a reporting schedule stating the months that semiannual reports shall be submitted. Subsequent reports shall be submitted according to that schedule, unless a revised schedule has been submitted in a previous semiannual report. (40 CFR 61.247(c))

c. An owner or operator electing to comply with the provisions of 40 CFR 61.243-1 and 61.243-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. (40 CFR 61.247(d))

**Appendix D - Protocol Checklist for Performance Test**

A completed protocol should include the following information:

- ☐ 1. Facility name, location, and ID #;
- ☐ 2. Responsible Official and environmental contact names;
- ☐ 3. Permit numbers which are requiring the test to be conducted;
- ☐ 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ 5. Alternative test methods or description of modifications to the test methods to be used;
- ☐ 6. Purpose of the test including equipment, and pollutant to be tested; the purpose may be described in the permit which requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- ☐ 7. Tentative test dates (these may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation);
- ☐ 8. Maximum rated production capacity of the system;
- ☐ 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate based on limits);
- ☐ 10.Method to be used for determining rate of production during the performance test;
- ☐ 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ 12. Description of normal operation cycles;
- ☐ 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ 14. Process flow diagram;
- ☐ 15. List the type and manufacturer of the control equipment if any;
- ☐ 16. List the control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test; note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ 17. How quality assurance and accuracy of the data will be maintained, including;
    - o Sample identification and chain-of-custody procedures;
    - o Are audit samples required for this test Method (EPA contact number for audit samples 919-541-1062) if yes then please make samples available to the District for observation during the stack test;
    - o Audit sample provider;
    - o Number of audit samples to be used:
- ☐ 18. Pipe, duct, stack, or flue diameter to be tested;

- □ 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- □ 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
    - Method 1 if stack is >12”
    - Method 1a if stack is between 4” and 12”
    - Alternate method of determination for <4”
    - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- □ 21. The Stack Test Review fee shall be submitted with each stack test protocol.

## Appendix E – Regulation 7.25 VOC Emission Points that do not have a BACT Analysis

### Appendix E Specific Conditions

S1. **Standards (Regulation 2.16, section 4.1.1)**

a. **VOC**

For Emission Points 03-112, 03-210, 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, 03-134, 05-690, 05-691, 17-166, 03-290, 03-291, 03-296, 03-300, and 09-102, the owner or operator shall limit the VOC emissions to less than or equal to 5.0 tons per 12 consecutive month period total unless a BACT is approved. (Regulation 7.25, section 3.1) (See Comment 1)

S2. **Monitoring and Recordkeeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **VOC**

For Emission Points 03-112, 03-210, 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, 03-134, 05-690, 05-691, 17-166, 03-290, 03-291, 03-296, 03-300, and 09-102, the owner or operator shall, monthly, calculate and record the total VOC emissions in order to demonstrate compliance with S1.a.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

a. **VOC**

For Emission Points For Emission Points 03-112, 03-210, 02-010, 02-020, 02-030, 02-040, 02-050, 02-060, 02-070, 02-080, 03-134, 05-690, 05-691, 17-166, 03-290, 03-291, 03-296, 03-300, and 09-102:

i. Emission Unit number and Control ID number;

ii. The beginning and ending date of the reporting period;

iii. The monthly and 12 consecutive month VOC emissions for each month in the reporting period;

iv. Identification of all periods of exceedance of the VOC emission limit and the operating parameters. If no exceedances occur during the reporting period, the owner or operator shall submit a negative declaration

v. Description of the corrective action taken for each exceedance. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

### Appendix E Comments

For this emission point group, a BACT determination is required to be performed for any future construction/modification subject to Regulation 7.25 for any emissions outside of the 5 tpy limit.

**Appendix F – Control/Process Device Efficiencies and Determination Methods**

1. Thermal Oxidizers

| Control ID | Description | Efficiency | Determination Method |
|---|---|---|---|
| C-KAC-14-723 | Regenerative Thermal Oxidizer | 98.2% | Option 3 |
| C-KAC-14-185 | Thermal Oxidizer | 98.0% | Option 1 |
| C-KAC-14-726 | Alternate Thermal Oxidizer | 99.2% | Option 3 |
| C-KV2-03-470 | Thermal Oxidizer | 98.5% | Option 1 |
| C-KVPA-09-175 | Thermal Oxidizer | 98.5% | Option 1 |

2. Condenser

| Control ID | Description | Efficiency | Determination Method |
|---|---|---|---|
| C-KB-03-761 | KB Distillation Columns Process Condenser | 70.0% | Option 1 |

3. Fabric Filters

| Control ID | Description | Efficiency | Determination Method |
|---|---|---|---|
| C-KAC-14-460 | Fabric Filter | 87% | Option 3 |
| C-KAC-14-446 | Fabric Filter | 87% | Option 3 |
| C-KAC-14-451 | Fabric Filter | 87% | Option 3 |
| C-KAC-14-429 | Fabric Filter | 87% | Option 3 |
| C-KAC-14-503 | Fabric Filter | 87% | Option 3 |
| C-KAC-14-499 | Fabric Filter | 87% | Option 3 |
| C-KAC-14-571 | Fabric Filter | 87% | Option 3 |
| C-KAC-19-195 | Fabric Filter | 87% | Option 3 |
| C-KAC-19-215 | Fabric Filter | 87% | Option 3 |
| C-KAC-19-265 | Fabric Filter | 87% | Option 3 |
| C-KAC-19-225 | Fabric Filter | 87% | Option 3 |
| C-KAC-19-376 | Fabric Filter | 87% | Option 3 |
| C-KVP2-11-250 | Fabric Filter | 95% | Option 1 |
| C-KVP2-05-810 | Fabric Filter | 95% | Option 1 |

| Control ID | Description | Efficiency | Determination Method |
|---|---|---|---|
| C-KVP2-11-130 | Fabric Filter | 95% | Option 1 |
| C-KVP2-11-134 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-281 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-429 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-437 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-650 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-692 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-545 | Fabric Filter | 95% | Option 1 |
| C-KV2-03-521 | Fabric Filter (Process Collector) | 95% | Option 1 |
| C-KVPA-09-250 | Fabric Filter | 95% | Option 1 |

Note:

1. Options for control efficiency determination:
   Option 1: Use District pre-approved control efficiency
   Option 2: Submit a signature guarantee from the control device manufacture stating the control device efficiency
   Option 3: Performed a stack test.

2. Until the District receives a signature guarantee from the control device manufacturer stating the control device efficiency is higher (Option 2), or an approved stack test (Option 3), the pre-approved efficiency (Option 1) will be used in all calculations to demonstrate compliance with applicable standards and calculations for emission inventory.

**End of Document**